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GUN CLUB X's

By H. M. Prior, Secretary-Treasurer

1940 looks like a banner year for the Consolidated Aircraft Gun Club. The executive committee has worked out a program which we believe will create a keener sense of competition and a more fraternal spirit throughout the whole organization.

Starting with the month of February, the Club is going to present medals to the high scorers of each month for pistol and rifle shooters. In order to prevent two or three men from winning all of the medals each month, we have adopted a plan whereby every shooter has an equal chance to win a medal. We take the names of all shooters who have competed at least three nights in one month and divide them in three classes according to their aggregate score. The high man in each class receives a medal. By reclassifying these groups every month every man has a chance to win by improving his shooting.

As an added inducement to improve his marksmanship, every member who shoots a rifle score equal to 85% of a possible 300 points from three positions will win a Club Emblem. The same award applies to pistol shooters who attain a score of 90% on a standard 75 ft. pistol target.

The Gun Club feels that with these incentives to spur us on we will develop a Club that will be second to none in this part of the country. So come on all you shooters—let's go places in 1940.

X NEWS

Bruce Miles and Len Stabenan have just been awarded new badges as per rumor. It is known that the award was made by the Navy for work performed on XPB2Y-1 over a three-year period. Coming at this time it will make a splendid Christmas present.



FINISH NEWS

By Al Griffith

I see Mr. Wilson is the honorable painter who painted our Xmas tree—good job too!

Among the number of boys coming back to work I see Pete Engbright. How are the turkeys, Pete?

Mr. Lythe is sure getting pleasantly plump. What certain sprayer went home one nite pretending to be a little tipsy and put on the act so well that his wife kicked him out? He went and stayed with a friend for two days, but was finally admitted home.



From the San Diego "Rotator" we have this one:

| Date | Expense Report | Amt. |
|------|------------------------------------|--------|
| 9-1 | Advertising for Girl Stenographer | \$.50 |
| 9-2 | Violets—New Steno | .65 |
| 9-8 | Week's Salary for Stenographer | 20.00 |
| 9-9 | Roses for Stenographer | 3.00 |
| 9-11 | Candy for wife | .75 |
| 9-13 | Lunch with Stenographer | 6.25 |
| 9-15 | Week's Salary for Stenographer | 25.00 |
| 9-17 | Picture Show tickets—self and wife | .80 |
| 9-18 | Theatre tickets—self and steno | 7.50 |
| 9-19 | Candy for wife | .75 |
| 9-20 | LILLIAN'S SALARY | 35.00 |
| 9-21 | Theatre and dinner with LILLIAN | 21.75 |
| 9-22 | Fur coat for Wife | 600.00 |
| 9-23 | Advertising for man stenographer | .50 |

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CONSOLIDATOR

Volume 5

January, 1940

Number 1

Just as we are going to press with this issue, the local press breaks the news that the Navy Department has awarded a new \$20,016,699.00 contract for airplanes to *Consolidated*. No official details were released as to the number or type of aircraft involved. The press' announcement placed us "securely in the forefront of American aviation's headliners."

TURKEY, TRIMMIN'S, AND A HAPPY NEW YEAR!

On Friday, December 22d, each and every member of *Consolidated*, irrespective of length of employment, received a \$5.00 Christmas check to cover the purchase of a turkey and the trimmings or its equivalent.

"The occasion of the Yuletide Season cannot be allowed to pass without an expression of appreciation for your co-operation thruout the year, and to extend to everyone a Merry Christmas and a Happy New Year," was the message Major Fleet extended to all *Consolidated* employees.

The *Consolidator* Editor received a very appropriate Christmas and New Years card from Carl Liebig, formerly of the Machine shop, extending Christmas Greetings to the "gang" at *Consolidated* . . . Thanks a lot, Carl.

LIKE FATHER, LIKE SON . . .

We have it on straight authority that young Henry Liegel, son of "Hank" Liegel of Sheet Metal, is quite the football player. Young Hank got a real write-up in the local press recently. He's been a star player on the Point Loma High School team, and this team has held the Metropolitan championship for four years . . .

Like father, like son, however . . . When Dad Liegel met with an accident and injured his hand recently, young Liegel played a little too vigorous a game and proceeded to break his arm. On December 6th the team staged a stag affair for fathers and sons at the San Diego Club. You can bet "Hank" and young Hank were there!

"Aviation as a Factor in National Defense," was the title of an address delivered by Major Fleet before the California State Chamber of Commerce Convention November 30th. The Convention met this year in San Francisco. In his address, Major Fleet pointed out the usages and importance of aircraft in times of national emergency and the benefits of the present aviation activity to all of California. Major Fleet is a director of the California State Chamber of Commerce.

COLOR PHOTO ARTIST

Russ Kern, it is learned, is quite the maestro in the art of color photography. Having taken some of his masterpieces in British Columbia, Washington, Oregon, the San Francisco Fair, in Borego, and about San Diego, his group of slides have become much in demand for local showings. Recently he delighted audiences at the Helping Hand Home, Rest Haven and the Vauclain Home. Russ, it is reported, is quite a hand with the lecturing that goes along with the showing of the slides. He kept one audience an hour past the prescribed time, and they were so entranced it was not until the show was over that the extra time was noticed!

Thru an inadvertent slip in the rush of preparing the pages of last month's *Consolidator* for the press, credit for the cover photograph was omitted from the magazine. By all means this should not have been omitted, and apology is hereby made for this error.

Full credit for the cover photo should go to *Consolidator* Al Lambert of the Tool Room who submitted this excellent piece of work.

BASKETBALL STANDINGS

December 14th:

Engineering 47, Maintenance 22.
Final Assembly 33, Wood Shop 22.
Production, won by forfeit; Experimental, forfeited.

Purchasing 11, Tank 59.

Sheet Metal, no team; Hull played church team.

Welding 15, Wing 17.

Total points won: Engineering 81, Wing 29, Welding 15, Hull 56, Final Assembly 56, Production 21, Purchasing 19, Maintenance 39, Wood Shop 30, Tank 59. Experimental forfeited.

"Consair" Night teams, basketball scores. (Dec. 11, 12):

Wing 15, Sheet Metal 24

Machine 38, Final Assembly 23.

Hull 43, Production 25.

Total points won: Production 74, Hull 73, Sheet Metal 54, Machine 53, Final Assembly 47, Wing 32.

SUCCESS

A man is successful when he refuses to slander even his enemies; when he does not expect to get paid for everything he does; when he does not wait until tomorrow to do the things he might do today; when he is loyal to his employer and to his associates; when he intelligently cooperates with others and is tolerant in thought and deed; when he studies constantly to prepare himself for a higher position financially and in the estimation of his fellows.

—Junior Citizen.

RING OUT THE OLD, RING IN THE NEW!

Good-bye old nineteen thirty-nine . . .

You weren't as bad as some we've seen.

You started out a toddling elf,

And now how old and wise you seem!

You hit some rough spots on the road

It wasn't downhill all the way.

You came so full of joy and hope

And now you're old—and wise—and gray.

Too bad you have to go, "Old Friend,"

The trail you blazed, others will follow,

Perhaps it ever will be so . . .

The new succeeds the old and mellow.

We counted every day you gave us,

Be eager, glad, be gay and sporty.

The old has gone, the new has come . . .

Let's give three cheers for 1940!

—O. T. Berger, No. 974.



Photographed in the patio on Major General Arnold's "flying visit," left to right: Col. D. N. W. Grant; I. M. Laddon, Vice-Pres. and Chief Engr.; Maj. Gen. H. H. Arnold; Major E. R. McReynolds, San Diego Air Corps Representative; C. A. Van Dusen, Vice-Pres. and Works Manager; Col. J. H. Burns; Col. F. L. Pratt; E. N. Gott, Vice-Pres.; Major R. M. Webster and Capt. E. H. Beebe.

VISITORS . . .

Of late we have been honored with quite a number of distinguished guests here at the plant: Above is pictured Maj. Gen. H. H. Arnold and his group who paid us a flying visit. On November 28th members of the Senate and House Military Affairs Committees also paid us a visit, but circumstances did not permit securing their picture. Members who paid us the honor included: Senator Elmer Thomas of Oklahoma, Senator Sherman Minton of Indiana, Senator Harry S. Truman of Missouri, Senator Dennis Chavez of New Mexico, Representative John Martin Costello of California, Representative Overton Brooks of Louisiana, Representative Charles Russell Clason of Massachusetts, Representative Paul W. Shafer of Michigan, Representative John J. Sparkman of Alabama, Representative William Devereux Byron of Maryland, and Representative Thomas Ellsworth Martin of Iowa.

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PRODUCTION MINUTES

By "Brad" Bradshaw

HERE it is folks 1940, a brand new year but about the same old "stuff" to read. We had hoped to get out of the fog by now. So we will wish everyone a glorious and eventful year. That is one advantage of writing a column—you can save the cost of cards and postage—sure missed the invitations to the doings of the Butterfields, Mucks, Browns, Mulroys, Benders, Hartmayers, Golems, and others over the holidays.—They seem to be getting wise and "ain't a talkin'" to no magazine reporters.—We are not mad tho because it was probably pretty bad "refreshments" they served anyway.—With the "sourpuss" look on the faces of Paul Hock, Roy Coykendall, Lloyd Bender, Bob Mussen, and Paul Gaughn, their wives must have bought themselves some rather expensive gifts FROM "hubby."

Mr. Claus who has the lowdown on the boys and girls around *Consolidated* gave out a few confidential statements on his one night out:—Jim Eisman, according to Santa, had a white tree with not a speck of "green" in the place. Says it is due to some mania brought on by handling so many "rush tags."—Ben "Kish" Kiegle, high mogul of Pacific Beach Chamber of Commerce, wanted some "good poison." Said it was to carry out his before election promises:—Art "Gracie" Stone asked for a pair of suspenders and an invitation to eat "rabbit stew" with the Coykendall family:—Jake Dietzer sent Santa a set of PBY BM's and asked for the raw material to fill requirements:—Paul Willoughby, married the week before, asked for several toys—optimistic about the future we presume:—Bob Mussen got a pair of "cheaters" which is saving a lot of "bark" from being knocked

from his shins going thru the narrow passages between the planning desks.

After being called some few choice names from the rather large vocabulary of Lou Miller, the Elsie Maxwell of Planning, and branding my recent article as grounds for libel, I was invited to "open house" with the usual gang of "mystics" who prove the "hand quicker than the eye." Needing the coin for Christmas and realizing I was in for a trimming, I declined. Jack Mulroy, Dan Clemson, Ben Leonard, Bill Wiley, Tom Butterfield, and Ted Anderson attended and here is how I heard the story from one of the gang. "We played in the parlor but had to take off our shoes, two bottles of beer were equally distributed, and later we were fed "salted peanuts" and the water turned off. This insured our leaving early enough for Lou to get the place cleaned before the wife returned. He mumbled something about improvements not being complete in "Cactus Gulch."

Happenings during the month: Ed Stewart took over the tool warehouse and Kel Aiken was named Asst. Chief Storekeeper. Ed has since eaten off three finger nails and waxed his head to save the last nine hairs. —Hotchkiss claims to have a powerful basketball aggregation but says there will be no 15 to 1 money this season.—Production No. 1 lost to Purchasing with Trotman keeping score and Mulroy and Stone "heckling" which proves Frank

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O'Conner still has the technique of putting the "evil eye" on all opponents.—Ray Tuit knows the feeling of being "King for a Day" when he distributes the pay checks.—Ed Kellogg claims that the star halfback playing for Tulane is his "Pop."—Roy Coykendall is trying to learn what kind of hunting is "shooting in the bush."—Bud Buffat, of inspection, cannot find the romance in mountain climbing that is pictured by the number one "mountain goat" Russ Kern. Sore feet, scratches, and aching muscles don't seem to compensate "Bud" even if the girl is beautiful.—Ernie Johnson says Larry Boeing, living in E.S.D., still makes a trip to La Jolla each evening—must be a story there.—Freddie Brady is not selling paper in the shop.—That bag is for carrying blue prints.—Some newly married fellows are going to be mighty disappointed to find their sleeping quarters to be mostly in the shop if the work keeps piling up.—Joe Maloney has a real band of hustlers in the blue print and records department with Dick Cromwell, Geo. Craig, Chas. Biehl, Jim Kendricks, Frank Cross, Freddy Brady, and Les Stockton.—Keep up the good work fellows and don't forget where to dish out the best service.—Owen Stockton, overworked correcting the writer's mistakes in the shop, has been given an assistant, Frank "Frenchy" McHugh.

According to "papa" Al Ballard, the new addition to the family, a husky of three weeks, will be ready for the "bull gang" in time for the building expansion. With the added expense Al is planning on opening a clothing store featuring a novelty "sweater creation" for unfortunates during the cold winter months.

Perry Ogden proves that the eyes are still good as well as recognizing talent with two "keyboard pounders" he turned over to Gracie Koenig that are shoving the orders out so fast they have Dietzer, Rasmussen, and Allison burning the midnight oil. So fellows meet Miss Lois Campbell and Miss Cedelia Roberts, who have stolen quite a bit of the spotlight from "Admiral" Art Stone.

The writer went hip swinging, shin kicking, and elbow bending with the Engineering staff at their yearly "blowout" at Hotel del Coronado. It was a swell dance and the way those boys were decked out reminded me of the homecoming dance at "Slippery Rock." Wells, Kennedy, Pfankuch, Kallis, McCabe, Lockheed, Growald, Dayton, Famme, and practically the entire gang were moving around like a bunch of rodeo ponies. Jeff Bouley did not show up and missed some swell "column stuff." Jeff said that he didn't like those

semi-formal affairs where you had to wear a shirt and tie. Most of the unmarried fellows maneuvered around and managed to miss the ferry for that delightful ride homeward around the "Silver Strand."

If "Major" McManus is playing "War games" he is surely making them realistic enough with the "barbwire" cuts and "scrapnel wounds" that so frequently adorn his features. More mystery develops when "Chancellor" Craig Clark of the night crew shows up with a "bayonet wound" across his head. Could it be something on the order of two dictators feeling each other out to see if the night or day crew holds the power?

Realizing what U.S.C. did with that hefty line this year, Chief Mulroy has added a little weight to his forward wall in the persons of "Buck" Gott, Ed Freakley, Carl Sjoblom, and Bob O'Donnel, and is probably anticipating some tough going against the shop team. These lads should help shake Anderson, Wiley, Generas, Hassler, and the other nimble-footed lads loose with enough parts to keep Jack happy.

Paul Gaughn, football prognosticator, has closed his season's contest with Bill "Lucky" Wiley taking in the "jackpot." Paul must have run it honest as he finished up next to the writer, last place. Bill claimed to have some good "inside info" on the games which we have since learned came from inside a school for the "feeble minded," that a relative is coaching. Anything can happen in the pigskin game as was proven when Bob Morse's alma mater won a game without Chicago U. on the schedule.

Barring a last-minute physical collapse, we assume that Bill Liddle took advantage of the holiday bargains and got himself "hitched." Frank Fields let him in on a swell "cut rate parson" without going "South of the Border." A last-minute reprieve failed when "papa" gave his consent. So now all of those rust-laden wedding gifts purchased for Bill in the past can be used. Lucky for me that I saved those dishes I have been getting each Tuesday night at my favorite East San Diego theatre.

Paul Willoughby, Hull dispatcher, was

another victim of cupid's deadly aim two weeks before. Paul passed out some pretty good cigars but we always feel guilty when smoking one, thinking of how much "meat and potatoes" could have been bought later on. Anyway the boys saved buying a Christmas gift for what more could two swell girls want than Paul and Bill hanging on a tree, or just hanging.

SILVER WEDDING

Mr. Ted Bodenhagen and his wife, Rose, will celebrate the 25th anniversary of their marriage on December 31, New Year's Eve. Many happy returns of the day, and may you both live to celebrate your golden wedding day. Mr. Bodenhagen is with the Maintenance Dept. —Mrs. Barnes.

Bill Gilchrist wishes to thank all those who made it possible for Santa to visit the Rest Haven Girl dormitory, with a doll for each child Christmas morning.



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Facts about the Femmes

BY KATHLEEN SCHNEIDER



OUR Christmas Party was a success from the time we parked our feet under the dinner table until hours later when we trudged our weary way homeward. The dinner table was beautifully decorated with miniature green trees, ice ponds, ski jumpers, skating shoes and other wintry scenes. Our dinner tasted as good as the table looked—which was the best would be a hard decision to make. There were thirty-three girls present and each received gifts from under a gay Christmas tree. After the gifts were distributed, “oh’s” and “ah’s” and other forms of admiration were prevalent, and comical mechanical toys were performing all over the room.

As the evening progressed, the male species began to make their appearance, and along came an orchestra to make our evening complete. Drinks and good dance partners were plentiful, everyone was congenial, and the orchestra was fine—’nuf said.

We saw: Ann Howard and Avis Clarke, the Scarlett O’Haras of the evening, in their backless black dresses—Bea Jackson, the plutocrat, with an orchid in her hair—Lucille Fisher as “The Lady in Red”—Grace Koenig in honey-colored taffeta, quite the glamour girl when the jacket was removed—Lois Campbell exercising her tonsils and warbling with the orchestra

—Mary Eleanor Meredith giving a demonstration of putting on and taking off her novel “Roman” sandals for several gentlemen—Irma Robbins, Lucille Fisher, and Mary Nugent playing Santa and distributing gifts from under the Xmas tree—Louise Girodon in a pretty green and silver gown—June Dunn pinning little ski jumpers on her dress—Evelyn Kells bobbing in and out the door—Fran Warner and Grayce Holm with intriguing zippers on their dresses—Leta Davis wishing her shoes would stop hurting—Blanche Davis floating in 7-Up instead of being preserved in alcohol—Jerry Buel bragging about her dress “did something for her”—Lorine Mounce, who was going to leave at 10:00 still having a good time at a quarter of three—Mary Nugent dancing every number—the orchestra being bribed to play another half-hour—Mamie Kipple asking everyone if they were having a good time—several “old standbys” conspicuous by their absence—Juanita Smith attacking her salad with gusto—Marcella Holzman tired but having a good time—Eva Wiseman looking under the table for her husband—Lee Johnson lending dignity to the atmosphere—Florence Cannon in cerise and blue taffeta—other interesting incidents too numerous to mention—was our party a success? Definitely.

And orchids to Irma Robbins and Lucille Fisher for their work in handling the party this year.

Mr. and Mrs. Earl Wussow are the proud parents of a son born Saturday, November 18th. The new addition to the Wussow family will be known to his playmates as Geoffrey Lance Wussow, 1st—Irma Robbins’ imitation of Hitler recently was a good one, ’tho the adhesive tape was a necessity and not for clowning purposes—The popular song of the month—instead of “Who Threw the Overalls in

Mrs. Mulligan’s Chowder”—is “Who Threw that Something Thru Mr. Learman’s Window”—Deep sympathy is expressed for the poor fellow who has to pay his laundry bill with his Christmas bonus—there just ain’t no justice—and then there’s the *Consolidator* whose Christmas check went to the laundry in his shirt and came back looking like a dissipated soda cracker—Betty Jane Melcher started out for a dance one evening not long ago and ended up having her appendix removed. So Betty will spend her Christmas holidays recuperating and will put her jitterbugging days on the shelf ’til able to rumba minus her appendix—Sorry to hear of Grace Swearingen’s illness and hope her stay in the hospital will be a short one—Dolores Elliott was another one who had to miss the party because of “appendicitis trouble.” What is it, girls, an epidemic?

The lure of last-minute Christmas shopping is too great to resist, so instead of racking my cranium, I’m off to wreck my feet.

Happy New Year!

THINGS THAT COME OUT AT NIGHT

By Craig

THOSE time clock bulletins reminding one that news for the *Consolidator* is due again are wearing me down. Maybe it’s because of the scarcity of news this month. Everyone seems to have been too busy with Christmas and New Year’s plans to give much attention to anything else.

Gordon Burns and Ed Chapman of Wing were properly decorated for Christmas. Those brilliant red, blue, green, etc. colored shirts they have been wearing compared favorably with the lights on the tree in the patio. If they didn’t move around so much one might expect to see them surrounded with gifts.

Johnny Petit gets help from Mineah and wishes “Min” would come in nights more often. The other night John lost a bar of candy to “Min” who did a tough job for Johnny. After thinking it over Mineah wonders whether he won or lost.

Rex Cord of Finished Parts Stock has a “stop and go” memory. The other night he forgot his badge and drove all the way to Chula Vista and back between 3:30 and 4:00. A few nights later Rex remembered the location of some parts he had stored six months ago. Kel Aiken still can’t believe it.

Gordon Richards, one of the newer additions to the Wing night crew, is well

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known by *Consolidators*. "Gordie" is the cheerful little fellow, who when he was secretary at the Coliseum, supplied us with passes to the fights and wrestling matches. Let's make him feel at home!

"Hustlin' Henry" Zilz, sheet leadman, whose motto is, "If you like our service tell others, and if you don't tell us" has a variety of interests. Henry has his own little ranch, raises mushrooms, chickens, pigs, etc., and finds time to install an occasional sprinkling system.

During the storm of last month *Consolidated* was without lights for a couple of hours. Imagine a dispatcher's plight in a case like this. Gordon Browne, however, was determined to "get his parts." It was only after he had badly bruised a perfectly good face that he decided the parts could wait.

An inspector has finally found some use for a dispatcher. Hank Niemeyer, paint inspector, wants Shelby Best to do his fighting for him. Hank will also trade for anything, any time. We are lucky to get out with our shirt sometimes. Why don't you trade Ross out of a few feet of waistline, Hank?

Ross Dilling is getting suspicious of "Doc" Walker. Doc sent to paint shop for a can of gasoline the other night. Ross wonders if Doc is using the gasoline to make liniment.

The night basketball league is a success. Six teams have been organized and play has been under way for three weeks. Just before Christmas the Hull Dept. led with Production, Sheet and Machine Shop in the runner-up position. The teams have improved rapidly and now play a good brand of basketball.

Bill Fleming of anodize had better trade in that straw hat or one of our "ranchers" will be taking him home for a scarecrow.

When the Hull Dept. does something it's in a big way. At the recent pig roast in El Monte Park the lads decided to stage their own "bowl" game. It was dubbed the "Greased Pig Bowl." I hear the Hotchkiss' won, but everyone was so sore they didn't care. Why don't you guys grow up?

Tommy Geararnotti of Wing Dept. has had a little streak of bad luck lately. Tommy blames it on the fact that the track is so narrow the horses can't run by each other.

Verne Melin of Wing is rushing the New Year just a little. A few nights ago, on the way home from Escondido, Verne misplaced his car. It must have followed him part way home for it showed up on Pacific Blvd. next day much the worse for wear. Verne, is trying to figure out some way it can put him in bed after this.

The stockchasers in Wing and Hull are finding it more difficult to locate lead men and foremen every day. The "forest" of fixtures in these departments is really a problem. We suggest that all lead men be given red caps, or a bell to wear around the neck to facilitate locating them.

There must be a Santa Claus and assuming this we put in an order for Christmas for: a pair of arch supports for Johnny Strachan, a new razor for Dante Selvaggi, a piece of metal that can be pounded thin enough to see through for Bob Potter, a chord line for Gordon Richards, a Tennessee victory over U.S.C. for Troy Lansing, a week in Seattle for John Petit, a new whistle for Johnny Glen and a Merry Christmas and a Happy New Year for all "*Consolidators*."

WING KEYHOLE

By Browne

BILL CHATHAM is arriving at work on time lately. We learn Bill has a very charming wife to awaken him every morning. Congratulations and loads of happiness to Mr. and Mrs. Chatham.

Leo Klingenstein has purchased his wife a saddle for Christmas so she can bring the horses in for him. Better luck next year, Leo.

We wonder who won the argument between Herb Ezard and his wife during a recent window-shopping tour. Someone said they compromised and Mrs. Ezard came out with what she wanted.

Al Ballard's head has enlarged considerably due to the recent addition to his family. Congratulations to Mr. and Mrs. Al Ballard for their new baby boy.

Harry Birse, how about an introduction to those two pretty gals you take home every night. The gang would be very pleased.

We see Elmer Gahlbeck has kept his New Year's resolution all year. Mrs. Gahlbeck hasn't cut his hair quite as often.

Mentioning resolutions, here are a few new ones for 1940:

Joe Saunders—no more teeth pulled because someone else does.

Vic Atkinson—better snapshots for the new year.

Harry Birse—to lower all benches in the shop.

Stephen Powell—to try a few new fast steps to speed production.

Bob Morse—more parts for Herbie Ezard.

Gil Lance—bigger and better goats.

Army Armstrong doesn't have any to break.

Frank Heidemann—to buy another pipe and a new can of tobacco, for his wife?

Charlie Wallman and Bill Sierra, former Wing Dept. employees, are back from North Island. Bill and Charlie are now members of Wing Inspection. Welcome home fellows, and keep up the good work.

Craig Clark, editor and chief night dispatcher has a very worried look of late. In a few weeks the Clarks are expecting a new arrival in their family. Craig is hoping for a boy. That's the old spirit, Craig.



He doesn't fly, but an airplane won't fly without him. He doesn't have a natty uniform; but a Pilot with all his uniforms would be useless without him. He has nothing to do with War Department maneuvers. But the Air Corps would be useless without him. Years ago some lily-fingered wag dubbed this grease-covered being "greaseball." Today efficient Aircraft operations would be a miserable failure without him. But what of it? He achieves no fame though he is the real hero. But without him all the money in the United States treasury wouldn't keep a fleet of modern aircraft flying. His grimy fingers can flick new life into an engine through a magic only he has control over. But no one has time to do him honor. HE is the mechanic . . . "Greaseball" . . . Highstone, X 8082.

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TOOL DESIGN TIDBITS

By Maguirre

Greetings to you all, dear readers and a Happy New Year.

We would like to take this opportunity to thank the members of the Engineering Department for a very pleasant evening at the Hotel Del Coronado on December 15th. Familiar Tool Design faces were scarce, but among those present were: Marcella Holzman, looking very charming, Glenn Webster, our new typist, and yours truly.

But to get into the Tidbits and happenings of this department, we are sorry to report at this writing that Mr. Van Doren, Tool Design's Chess Champion is ill. We hope he recovers soon.

Mr. T. P. Shaw has trouble in Tia Juana. Mr. Shaw: you can learn Spanish in ten easy lessons. George Denton, is now one of those things that come out at night. We hope that Roy Smeltzer doesn't get any cigars for Christmas. That happy smile on Mr. Bennett's face doesn't mean that he is a millionaire; his wife is back from a trip to the East Coast. Perry, quit bragging about your daughter, however, we can't blame you. Le Maire, "our hunter", shot up three boxes of shells in Mexico. Results—sore arm. How was the air meet, Davidson? Bob Hyder has been spending some time whittling quail calls at noon. Ed Gurling says he wonders what Hank Morgan's sudden interest at Borego Valley is.



SAY YOU SAW IT IN
THE CONSOLIDATOR

BENCH NEWS

Henry Doerr is now cornered between a floor furnace and a distillate heater. Somebody come to the rescue and help him decide. 2930.

Carl Scherer has been bit by the Love Bug for the 25th time, but this time he is going through with it if it kills him. That's what he said before but he's still making feminine hearts flutter. 2929.

The old skipper, Bert Kemp has given up sailing the high seas and is back working in the Bench Department.

Teddy (Begonia) Edwards' chickens don't produce very much towards the feed bill, so he has started to raise gold fish for his new hobby.

Due to the higher tax rate this year Teddy Edwards thinks it would be better to give Pacific Beach back to the Indians.

Bill Rasp moved into his new home just finished in Rolando Village.

We wonder if Geo. Eggleston is going to take on a partner? He's remodeling his house.

Owen Harder drives right up to the new Police Station to get his ticket for a traffic violation!

Bill Bellows is overhauling his boat. He will have her in first-class shape for the coming fishing season?

The Boys of the Metal Bench Dept. who have worked here a considerable length of time and who will receive their 15-year pins will miss the familiar face of Bill Milton who, until a few months ago, was one of the old timers. All the old timers are wishing Bill the best of luck in his new position at North Island. No. 2938.



"Join the Navy, See the World"

Join the Navy and see the world! . . . especially, it might be added, if you're fortunate enough to hook up with a bunch of PBYS!!! Here are some snapshots received by our Vice-Pres. C. A. Van Dusen, from his son, C. A. Van Dusen, III, from "somewhere in the Pacific." Upper is a picture of N. A. P. Kelly, one of the pilots . . . and that's the inside of a PBY, or it wasn't built by Consolidated! The information is added that, "Kelly is red-headed, in case you're interested." The middle view is of Kalakau Corner, Waikiki; crossroads of the Pacific. The third sign from the bottom on the right of the pole (if we have any influence with the Chamber of Commerce) is henceforth going to read, "16 hours, 17 minutes, via PBY . . . SAN DIEGO." Lower is C. A. Van Dusen, III, "somewhere in the Pacific making friends with a Gooney bird. Planes are on the water in the background.



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DRIFTING THRU DRAFTING

By Jeff Bouley

We can regard Chuck Freel with mien so sedate,
Mid the giggles and squeals of his worshipping
date;

But when suddenly into his tricks he delves,
It keeps us in stitches in spite of ourselves.

APPARENTLY Chuck Freel is going in for a bit of comedy of the slipstick variety or, should we say, mixing his slipstick and lipstick these days. One of our demon operatives chanced to pass a downtown dine and dance establishment and spied our hero seated inside with a beautiful young creature who gazed soulfully at him in mute admiration as he deftly manipulated, of all things, a slide rule! It now develops that among the amazing feats of magic that Chuck performs on said article to the delight of his feminine friends is the reading of a gal's horoscope. Yowsah! The field is practically unlimited for the clever young engineer of today.

The holiday season apparently keeps everyone too busy to get married, or possibly those astute young men chose to keep the gals out of their folding money until after the spending season. At any rate, our Ties and Cries department did not record a single knot this month, and those babies who have arrived at such an unfortunate time to get a birthday and Christmas present all in one are the little gals of Herb Sharp and Tommy Hemphill.

We have fought to repress it for two months, but the truth will out. The Citizens' League has insisted that we record the fact that Frank Fink arrived thirty minutes early at a recent banquet and rushed to a seat in the middle of the front row. He then steadfastly refused to yield his seat or even turn around to eat until after the entertainment had ended.

Things would be pretty dull around Ocean Beach sometimes if it weren't for some of the happenings to Larry Bayliss, the strong, silent sentinel of the stress gang. Several months ago he and Howard Macdonald spotted several good fire logs along the beach about a mile from their houses. They proceeded to make a raft of same and soon they cast off and were on their way, well outside the breakers. As they passed Sunset Cliffs, a crowd began to assemble along the beach and soon sirens screamed, ambulances arrived, and the two mariners were "sensationally rescued" much against their will. They tied their raft up and gave up in disgust for the day. But then came the storm and the next day their raft was headed for the land of lanterns and kimonos.

Now more recently we hear Bayliss being dubbed "Galento." When we inquired into the causes we found that there was a story

behind it. Larry is a robust guy of the type that makes the Chamber of Commerce proud. He likes to take a swim in the ocean every day, summer or winter, but because of the daylight problem he cuts down to Saturdays and Sundays in the winter season. He was following this practice one Saturday off Sunset Cliffs and he was peacefully floating on his back when he heard the whine of a bullet as it sailed past his head and ploughed into a swell. He galvanized into action and swam for shore. When he arrived on the beach he found a shivering youth who explained to Larry that it was all a mistake—he had thought he was shooting at "an old beer barrel." Perish the thought that we should ever venture a pun, but we think if we were Larry, we would have given the guy a good stiff polka two.

This very unusual weather that we have in California sometimes brings out very unusual incidents. When the thunderstorm hit last month Graham McVicker noticed a small leak in the roof of his garage. Fearing the rain might damage the goods stored inside, he ventured forth to repair the leak. It may have been the darkness or it may have been the wet roof; at any rate something happened quite suddenly. When the action halted, Mac's legs were dangling, one on each side of a rafter. The shingles, unaccustomed to 230 pounds of concentrated shock load, had yielded, to put it mildly, and two gaping holes emitted light from within. The ensuing chain of events is not known but we understand that Mac gave up and made a trough.



WOOD SHOP CHIPS

By J. Hodgson

WELL, well! Our old friend Bob Brabban has retired from the sea, has in fact burned (or sold) his boat, and bought a jalopy. Yes sir, Bob is going to live the life of a rancher out La Mesa way (after working hours). His ground is mostly occupied by lime trees so we feel he ought to be good for at least one "rickey" when you pay him a visit.

Bob recently bot himself a new DeSoto so he truly has two cars in his garage, even if one is a '29 Ford.

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It was Mac McGiffin who bought Bobbie's boat. I guess the new "Skipper" is pretty well known among the "rod and reelers", however, on the q.t., he asked us to let it be known that he is going into the fish business. O.K. Mac you may go in the finny (not funny) type of fishy business, but please leave the smell at home. I could have made a pun here about having "smelt" but I'll let it pass.

It may be the Christmas spirit, but buying cars will soon reach the epidemic stage, if it is not curbed. Art Wiffenback, our hair-trigger inspector has swapped off his old "Buick" for a later model Chrysler. Atta boy, Art, just keep rollin' along.

Frank Mische, another pattern maker in our fraternity also got himself a new car. When he did not show up for work the other day, we were worried, as Frank doesn't lose any time, usually. We know the car is all right, Frank, but who is the little lady in Los Angeles who caused you to stall there? Folks, he won't talk!

They tell me there was a cute young saleslady around here recently, trying to sell, of all things, 6 inch scales. We have not seen these particular rulers, but they do say that you had to have a book of instructions to be able to read them (the scales). Maybe you "guys" should have gone to night school.

We are near the end of another year, in San Diego. It has afforded me a great deal of pleasure to scribble our article each month, and if space will permit I would like to thank all the boys in the Wood Shop for their help and cooperation in providing the stuff that goes into our little corner.

Each of us, wishes each and every other one of us, A Very Merry Christmas and a Happy Prosperous New Year.

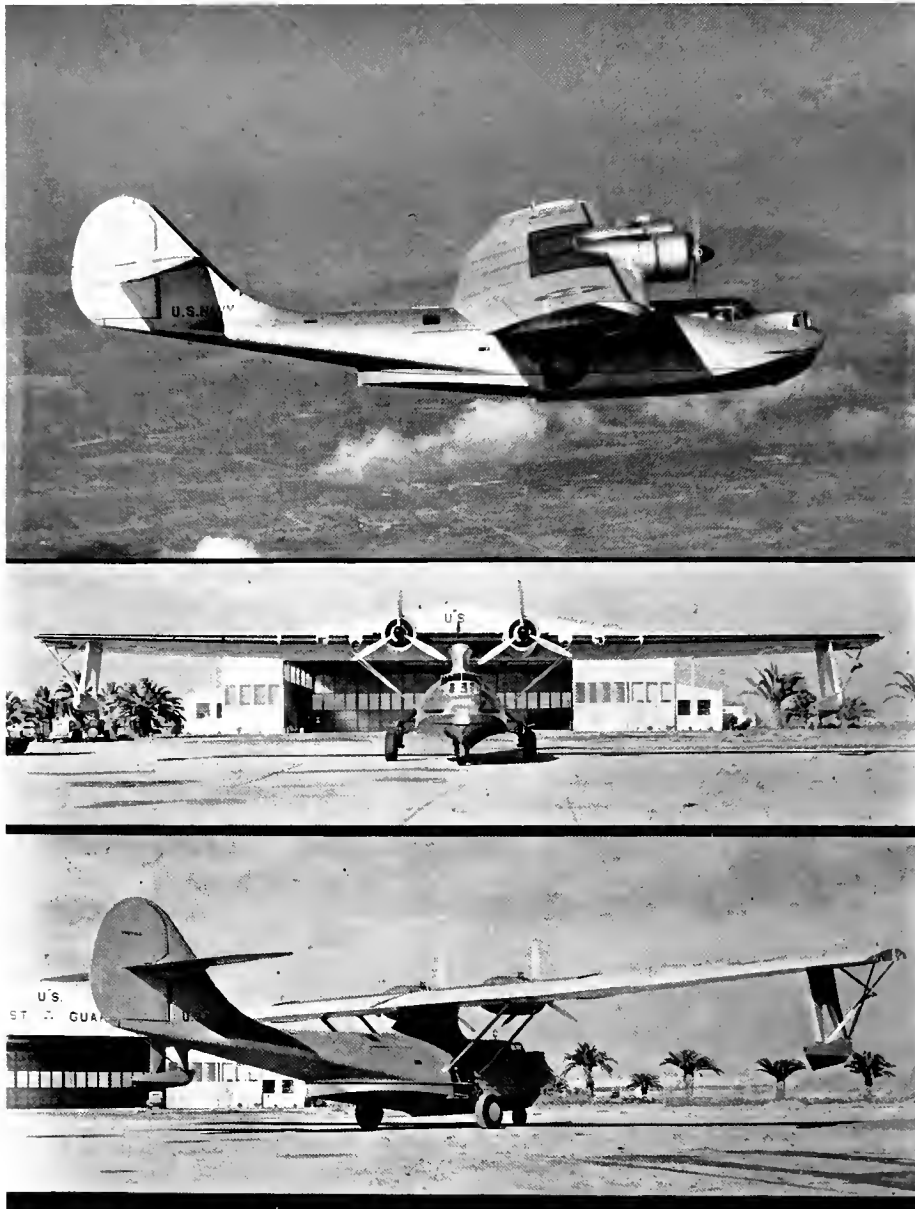
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plete with oleo shock struts, retract into wells in the side of the hull. The nose wheel in the bow is completely closed over in the retracted position by automatically operated hatches so that no resistance to planing is encountered. All three wheels are operated by a central hydraulic power drive, and the operations are carried out in sequence automatically. A single lever controls both the extension and the retraction of the landing gear. Hydraulic pump power is derived from the main power plant or from an auxiliary engine, and may be operated by hand if necessary.

Flight characteristics of the Model 28 flying boat so highly perfected in the original design, have been unaffected by the incorporation of the landing gear, and several handling advantages have become apparent. Flight testing with the gear in all positions, and in combination with the retractable wing tip floats, failed to disclose any adverse effects. The same stable flying characteristics of the PBY are maintained, and there was found no loss of speed with the landing gear in the retracted position.

The advantages of the landing gear, aside from greatly extending the scope of utility for the Model 28, are many: "For taxiing the extended gear serves as a sea anchor and greatly assists in control on rough open water, and in making an approach for mooring or ramp with an adverse wind. More engine power may be applied for short turns without undue acceleration. Turns on the water are achieved with far less skidding, and the danger of scraping the keel on the ramp is eliminated. There is no necessity for a beaching crew,

WORLD'S LARGEST.....

On December 7th there went out to the world at large the following release, telling the world of our amphibian. Stated briefly, it gives all the dope that is releasable at this time, and so is printed here in full. One other interesting fact is worthy of note: The XPBY-5A is the heaviest airplane ever to operate from Lindbergh Field up until this date, so far as is known.

World's Largest Amphibian Makes Its Debut . . .

The Consolidated Aircraft Corporation's newest contribution to aeronautical progress, the Model 28-5A Amphibian, designated by the U. S. Navy for whom it was constructed as the XPBY-5A; has undergone its flight testing to become as a result, the largest amphibian plane in the world.

Basically the new *Consolidated* Amphibian is the Model 28 twin-engined flying boat which the Navy knows as the PBY. This design of boat has already accumulated a remarkable total of massed flight records and reputation for sustained performance, and now there has been incorporated in the structure, the amphibian feature. The inherent advantages of the Model 28 boat have been retained, and the great advantage of land plane operation added. Thus the amphibian can operate from either land or sea, to land or water bases in remote localities, opening a vast new realm of utility.

The landing gear is of the tricycle type, with a single wheel forward and two aft, all of which are fully retractable. The side wheel and supporting mechanism, com-

as the ship can climb a ramp or beach under its own power, or descend in the same manner, completely controlled by the brakes. It may also operate from remote sand beaches without benefit of special ramps or facilities for handling.

The side wheels are above water when the ship rises on the step in making a take-off, and automatic means have been provided to eject all water in the closed bow wheel hatch before the plane is in the air. Thus the flying trim is unaffected.

Repairs or routine servicing to the landing gear can be accomplished with a minimum of trouble. Normally, with a landplane of comparable size, the supporting of the plane's weight for repairs to the landing gear is an acute problem. In the *Consolidated* amphibian, the custom-

ary beaching gear lugs incorporated in all Model 28s are retained. All that is required for servicing of the landing gear is to attach a standard beaching gear and run the plane out of the water. The beaching gear lifts the landing gear clear of the ground where any servicing may be carried out. No special equipment is necessary, and since the beaching gear was designed for quick attachment and removal, the operation consumes a minimum of time.

In action the huge amphibian alights with a smooth absorption of its descending velocity, exhibiting no tendency to bounce or porpoise. When alighting on land, the ship's tendency in a side landing is to straighten out; and the brakes may be applied to the utmost without adverse effect. This technique simply increases the load on the nose wheel. No special procedure is needed for take-off or landing. The wheels may be locked, elevators pulled full back, and both engines given full take-off throttle without the possibility of the nose wheel rising from the ground. During recent testing, a landing was made in which a bump happened to be struck on the instant of contact with the brakes on. The accelerometer showed a very high reading, yet no trouble either structural or in handling, was encountered. With the familiar Model 28 wing tip floats extended, the drag is increased and the angle of glide is steepened.

Incorporation of the amphibian gear, as an integral part of the famous twin-engined flying boat, without disturbing its basic flying qualities, makes the field of operations of the world's largest amphibian, the *Consolidated Model 28-5A*, virtually from anywhere to anywhere on the face of the globe.

As this goes to press, the "World's largest amphibian" has spanned the continent and aboard her along with the Navy crew, is our own fellow worker, Gene R. Tibbs, who accompanied the ship east as company representative.

Announcement—from Drawbench Department: Winfield Cliff Scott, Jr., 8 lbs., 3 oz., born December 6th; Mercy Hospital. Congratulations!

HULLABALOO

By Al Leonard

THE pig barbecue attended by a large group of Hull folks at El Monte Oak Park was a huge success. Plenty of food and beer put every one in a very good humor. The feature attraction was the football game between the Beer Guzzlers and the Pantywaists. George Galley intercepted a pass and ran for the only score of the ball game. The touchdown didn't do Galley much good though, because he was so worked out from the run that he had to retire and missed out on the feed.

Two rookies were given the works recently by some of their more experienced co-workers. Jimmy O'Rourke scoured the entire plant looking for some dehydro-oil (dehydral). Norm (Ears) Heckerth was sent to bring a hole closer. When told to get a pork chop drill some time later, Norm refused to go, saying that there couldn't be a pork chop drill any more than there was a hole closer.

The manager and all the boys on the Hull basketball team wish to thank the boys in the bulkhead department for buying the new basketball for the team. The boys promise to play some classy games throughout the season and would like to have all the Hull Dept. turn out for all the games.

Elliot tells this sad one. While coming to work one foggy morning Elliot was blinded by a sudden beam of sunlight which penetrated the fog. As he leaned forward to lower his sun visor he was startled to hear a crash and a bump. Elliot got out of his car to see what the trouble was and was horrified to find out he had run into a police motorcycle. Before he could get into his car to drive it out of the middle of the road another fog-bound motorist crashed into the rear of his car. Elliot says he didn't mind paying for all the damage as much as he did facing his wife when he got home, because the last thing she said before he went to work was "Elliot be careful."

"Red" Chaplin claims that he lost his hard fought golf match because he was the victim of a practical joker. Freddy Grossher somehow got around the thirteenth hole

and finally took Chaplin on the 19th hole. George Wire borrowed Chaplin's clubs one day and soon the rumor got around that he had traded Chaplin's clubs in for a new set for himself. Chaplin was so upset about this that he was a nervous wreck by the time he played Freddie, although he had gotten his own clubs back. Chaplin admits that he was on a special diet the week of the match. He says he cut out all meats and had nothing but liquids so he would be in good shape.

Happy New Year everybody.



Wherewith we pause to repeat another cute jingle:

There was an aircraft worker named Straus
Who went on a terrible sauss
He had the right key
In the keyhole, you see
But the keyhole was in the wrong hauss.



The city fellow's ancient chariot was misbehaving away out on a little-traveled lane, and he was discouraged. As he tinkered with the so-called mechanism, a farm boy watched the proceedings, open-mouthed, and finally in exasperation the motorist barked, "Is this the first automobile you ever saw?" "No," replied the country boy, ruminatingly, "but it looks a lot like it."

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HAPPY NEW YEAR



HERBERT SCHIFF MEMORIAL TROPHY

THE Herbert Schiff Memorial Trophy awarded annually to the naval aviation squadron or unit with the best record for safety in flying during a year was won by Patrol Squadron Eleven, attached to Patrol Wing One, San Diego area. It had a total of 4,903 hours flying time, July 1, 1938-June 30, 1939. This squadron was designated as Patrol Squadron Seven until July 1, 1939, when it became Patrol Squadron Eleven.

The Herbert Schiff Memorial Trophy was presented to the Navy Department in 1925 by Mr. William Schiff, brother of Lieutenant (jg) Herbert Schiff, U. S. Naval Reserve aviator who was killed in line of duty at the Naval Air Station, Norfolk, Virginia, on July 11, 1924. The expressed purpose of the donor of the award was to stimulate interest in naval flying and at the same time to reduce aviation accidents. Until 1929, the award was made to individuals, but in that year the rules covering the contest were revised and the trophy awarded to the squadron or unit which made the best record for safety in flying during the fiscal year.

Lieutenant Commander Silas B. Moore, U. S. Navy, was commander of Patrol Squadron Eleven from March 2, 1938 until June 1, 1939, when he was transferred to the Staff of the Commander Patrol Wing Two, Pearl Harbor Area. (Home, Glendale, Calif.)

Lieutenant Commander Frank Trenwith Ward, Jr., U. S. Navy, is now commander of the squadron. He was its executive officer during the past competition year. (Home, Raleigh, N. C.)

Patrol Squadron Eleven was awarded the Schiff Memorial Trophy for 1937 and is the only patrol squadron to have been awarded it a second time. This squadron received no penalties in the computation of its score, having had no accidents of any kind during the past year. Twenty-



Above: V.P.-11 (old V.P.-7) Winner of the Herbert Schiff Memorial Trophy, lined up at the award ceremonies at North Island, Dec. 16th for the presentation. One of the V.P.-11 planes (our PBYs) is immediately behind them.

Below: The presentation of the Schiff Trophy to Lieut. Comdr. Silas B. Moore, U. S. Navy, Commanding V.P.-7, by Captain C. P. Mason and Staff.

Left: Captain Charles P. Mason, Commanding Patrol Wing One holding the replica which was given Lieut. Comdr. Moore for his permanent possession. Right: Lieut. Comdr. Silas B. Moore, Commanding Officer V.P.-11, winner of the Schiff Memorial Trophy.

four squadrons and units were in competition for the trophy.

Lieutenant Commander Moore was born at Compton, California, October 18, 1899, and was appointed to the Naval Academy from Iowa in 1917. He was designated a naval aviator August 1, 1924, and had duty with Observation Squadron Two, in the U.S.S. California and at the Naval Air Station, Pensacola, until 1927. After completing the post graduate course in ordnance, he served in the Asiatic Fleet, with Torpedo Squadron Five, in the U.S.S. Houston and in the U.S.S. Augusta. He was attached to the Naval Torpedo Station, Newport, Rhode Island, from August, 1934, until June, 1937, when he joined Patrol Squadron Seven, and was in command from March 2, 1938, until June 1, 1939.

He has been tactical officer on the staff of Commander Patrol Wing Two since late in June, 1939.

He has received the Victory Medal—Atlantic Fleet Clasp, and Yangtze Campaign Medal for participation in Shanghai Incident, 1932, while attached to U.S.S. Houston.

Lieutenant Commander Ward was born in Raleigh, North Carolina, December 25, 1901, and was appointed to the Naval Academy from North Carolina in 1919. He was designated naval aviator, April 24, 1926, and served with Torpedo Squadron Two, in the U.S.S. Saratoga and at the Naval Air Station, Pensacola, until October, 1930, when he reported for duty in the Bureau of Aeronautics. From June, 1932, until June, 1934, he served as flag lieutenant and aide to the Commander, Aircraft Scouting Force, and later to Commander Aircraft, Battle Force, and joined Fighting Squadron Five, June, 1934. He was attached to Squadron VN8D5, at Naval Academy, Annapolis, from June,

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1935, until June, 1938, when he was transferred to Patrol Squadron Seven, and assumed command June 1, 1939 (Patrol Squadron Seven) changed to Patrol Squadron Eleven, July 1, 1939.



MACHINE SHOP NEWS AND VIEWS

By Matt Wielopolski

ALTHOUGH I am pressed for time and space, my friends of the Machine Shop and *Consolidated*, I want to take this opportune moment to wish you all this New Year wish:

"May every hour of every day of the Coming Year,

Bring you the blessings of Happiness, Contentment and Good Cheer."

With the Thanksgiving holidays, and a heavy Christmas rush put asunder, we are now confronted with the spirit of the nineteen hundred and fortieth year. That's quite a long time when you stop and think about it. But why stop, says I, when there's so much to do. Then there is the day, and that's only eight hours short.

This brings me back a few (*Consolidator*) issues, when I commented on Ray (Pop) Felton's doing so well at his age and all due to his School of Opportunity and Hard Knocks, Well! I have since found out that the majority are opposed to the "School of Experience" due to the lack of holidays and vacations.

Here's a bit of news which will bring to some Mothers envy and blues. Our young machine apprentice, Al Wang, has his mother living with him during these Happy (Holy) Days. In a few weeks Al will take his mother to San Bernardino for a visit with her mother, Mrs. Ed Marsh, whom she has seen only once in fifteen years. This is a three-fold visit for Mrs. A. Wang, (1) Living with her son, Al, (2) Seeing her own mother, and (3) Visiting our California.

Al proves to us that every day should be Mother's Day instead of but once, in May. All the boys at the Machine Shop envy you, Al!

Now we extend another treat. Mrs. Anita Loveridge left Newton, Iowa, by way of the Santa Fe. She arrived in our fine city on the "Scout" December 17. During her stay here, Mrs. Loveridge will be escorted in and about California by another Iowan, Mr. "Sir" Edmond Passmore, L.T.D. and H.M.S. Anita, er—er, Mrs. Loveridge intends to see and hear from her son, who is now in the U.S.N.

This first column of the New Year should be dedicated to the Ladies. Why not? What with Leap Year and I with-

out fear—so far, yet so near—shucks, there goes that gear,—something's wrong! Fear—

Remember when Long Beach was taken over by the Iowans? Then when Iowa University licked Notre Dame? Now they're here, well, that's corn huskers for you. Hard to beat. Even I owe a bill or two.

More visitors:

Mrs. Sel Christensen and three children with husband, Selmer.

Mrs. Chas. Wharton with hubby, Charlie.

Mrs. Leo Inhoff with mate, Leonard.

Mrs. Ralph Sellers and family on the way to the West.

The Machine Shop Basket Ball Team wishes to extend hearty *Thanks* to all who have supported them financially. To date, we have won two games and lost two games. Now, if the night shift, men and boys, wives and girls, relatives and friends, support them, we may bring fame and glory to the dear Ol' Machine Shop.

Last but not least—

"May you have—

The gladness of the New Year,

Which is Hope;

The spirit of the New Year,

Which is Peace;

The heart of the New Year,

Which is Love."



Pure Reasoning

Some fellows think they can borrow more money than they earn and still come out even. Their system of making things balance is like the two kids at school who were talking in the classroom:

"Say, Jack," said one, "how many legs has a horse got?"

After some thought, the second student said: "Why, eight, of course."

"How do you figure that out?" said the puzzled inquirer.

"Simple! Two in front, two behind, and two on each side."—Navy News.



There is much in the psychological approach: Tomatoes were once regarded as poisonous . . . now their juice is nature's vitamin filled nectar. If only more people would discard the psychological approach to aviation that it is a poison . . . take it coolly, with a little salt . . . what a stimulating vista would be unfolded.



Forged aircraft cylinders often have $\frac{3}{4}$ of their material removed in machining.



"It is better to wear out than to rust out."

The Inspector

Tough jobs, don't have a thing on me
For misery bends me double
My life is sad as a life can be
For my everyday name is "Trouble".
I'm the target fair for the whole damned shop
I'm the regular grouch collector
I'm a sort of bag for the boys to punch
For I'm a poor Inspector.

The fellows say I'm a hawk-eyed Grump
With an ingrown disposition.
The Boss—he says, I'm a careless Chump
Whose sight is in poor condition.
From Pattern Shop to Shipping Room
From Water Boy to Erector
The whole gang adds to the murky gloom
In the life of a poor Inspector.

The foreman surely has woes enough
The "Supe" has a few to hold him
The Manager's job is sometimes tough
When worries and cares enfold him.
But mine is the worst of the lot because
I'm a kind of a shop detector
Who's cursed for finding or missing flaws
A widely abused Inspector.

Well—The fellows bark—but they never bite
And it's all in the job—you've said it.
So I'll try to see that the work is right
And certain to do us credit.
For a bum job never was useful yet
And being the flaw detector
I reckon I'll do my best, you bet
In the style of a real Inspector.



PERMANENT POSITION

The following notice was inserted in a farm weekly:

"Anyone found near my chicken house at night will be found there the next morning."

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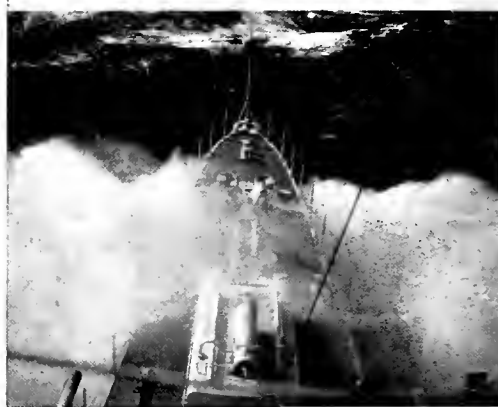
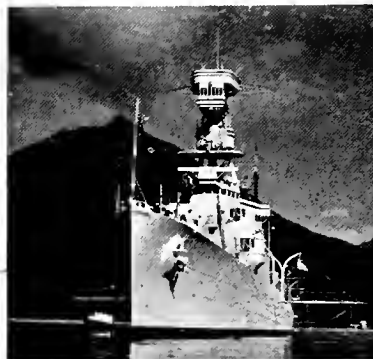
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WHY AVIATORS LEAVE H

IN the October issue of the *Consolidator* there appeared a brief article on the flight of the XPB2Y-1 four-engined Consolidated Flying Boat under command of Commander Andrew Crinkley, U.S.N. On that flight, it will be recalled, the Sand Point Naval Air Station at Seattle, Admiral A. B. Cook, commanding the Aircraft Squadron of the Aircraft Scouting Force, by dispatch, hauled down his flag on the U.S.S. Memphis and hoisted it aboard the XPB2Y-1 Flagplane, thereby establishing a precedent in Naval History. Never before had such a flag been officially hoisted on a plane. The huge plane, by formal procedure, thus became the first Flagplane ever to fly for the United States Navy . . . a signal honor.

In the area of Sitka, Alaska, the XPB2Y-1's crew and party encountered exceptionally beautiful weather, and fortunately a photographer took full advantage

of the occasion. Some of the views taken on that occasion are reproduced here to show "Why aviators leave home." Lest other aviators and individuals get foot-loose, it should be pointed out that not always is such perfect weather enjoyed. The weather was exceptional. The views Nos. 1 thru 13 are as follows:

1. The snow-covered mountain range behind Sitka, Alaska.

2. The XPB2Y-1 flying over water and islands, coming in toward Sitka from the north. Note that the islands and land to the water's edge are covered with trees.

3. A group of islands in Sitka Harbor, with the rugged and towering mountains in the background.

4. The U.S.S. Memphis at anchor in Sitka Harbor. Mount Arrowhead is in the background.

5. The Memphis (Flagship of the Aircraft Squadron Scouting Force) steaming

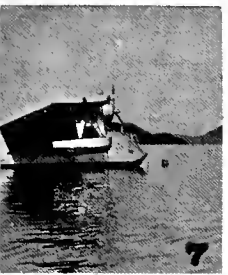
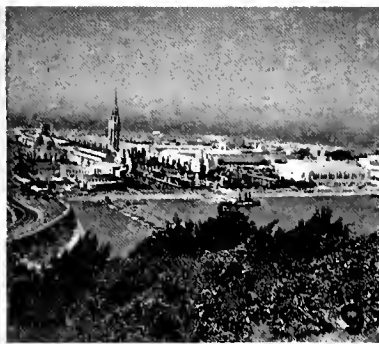
in the North Pacific, plowing through heavy seas between Sitka and Kodiak.

6. Sitka, and environs, as it appears from the air. A patrol squadron of PBVs, and the Memphis are at anchor. Likewise the XPB2Y-1 (nearest of the airplanes) can be seen riding at anchor. Sitka is situated on the upper left. The large island to the right is Japonski. On this is located the U. S. Naval Air Station of Sitka, Alaska.

7. The Consolidated XPB2Y-1's (Flagplane of the Aircraft Scouting Force) anchored at Sitka. Atop the XPB2Y-1's hull are seated Admiral Cook, Congressman Scrugham, and Commander Crinkley.

8. Another view of the XPB2Y-1. The trees are on Japonski island in the background.

9. A view of a bit of man-made fairyland: The San Francisco Exposition. The XPB2Y-1 stopped at the Pan American



OME . . .

base on Treasure Island on the return flight from Sitka to disembark Congressman Scrugham.

10. Another view that could hardly be missed at San Francisco. The Bay bridge from San Francisco to Oakland.

11. On the dock at the Naval Air Station at Sitka. Left to right are: Commander Andrew Crinkley, Congressman Scrugham, Commander George R. Fairlamb, Jr., and Lieut. R. S. Purvis.

12. Looking across the bay at Sitka. Remains of the old Russian Blockhouse in Totem Pole Park may be seen to the left. Jamestown Bay is on the right and Cross Mountain in the background.

13. Another of those breath-taking flying views of the snow-covered range back of Sitka. Notice Clear Lake nestled in the crags to the left. This scene was taken flying from Chatham Strait to Sitka.

THE HULL TRUTH

By "Chuck" Farrell

JOHN GLENN refuses to tell us how he came by that name of "Bubbles." After kicking over a lot of damp rocks we have a story. Won't let it out until we have all the facts. If not from "Bubbles" we will have to get it from his friends(?).

Bob Patter's vacant stare and double talk had the night force worried. No one seemed to know just what had happened to the lad. When one night in answer to George Wire's question, Bob answered, "Yes, Lambie," we all knew. The boy is in love. The "Love Bug" not only bit him it chewed him a bit. And a tweak on the ear did it all. She is a swell gal, Bob, and it happens to the best of men.

This loud shirt business is really expanding. Latest addict is "Smokey" Stover. He wears a creation that looks like a house painter's night-mare.

Frank Popp would like to swap his watch for a sun-dial or an hourglass. He needs something a little more accurate than the time-piece he now carries.

Some Christmas suggestions you may want to second—

A bag of gum drops for Louie Fischer's sweet tooth.

A pair of boots to go with Jack Bryant's cowboy shirt.

Boxing gloves for Tiger Jim Hawkins.

A pair of strong glasses for Joe Drozd.

A motor scooter for "Gibby" Gibson,—a slow one.

A dime's worth of bubble gum for John Glenn and John Macey.

The Hull Basketball Team captained by Bob Patter is in first place in the night league. Seems they are the boys to beat. Several new members have been added since they started playing and the outfit gets better with every game. Will have a complete list of players and scores of past games later. In the meantime we wish you all the best of luck in the coming year.



We understand that Ted Laven of the Bulkhead Dept. is taking the fatal jump sometime this month with Miss C. Empke. Best of luck, Ted!

—H. Hershey, No. 4021.

ON PRESSURE CARBURETORS....

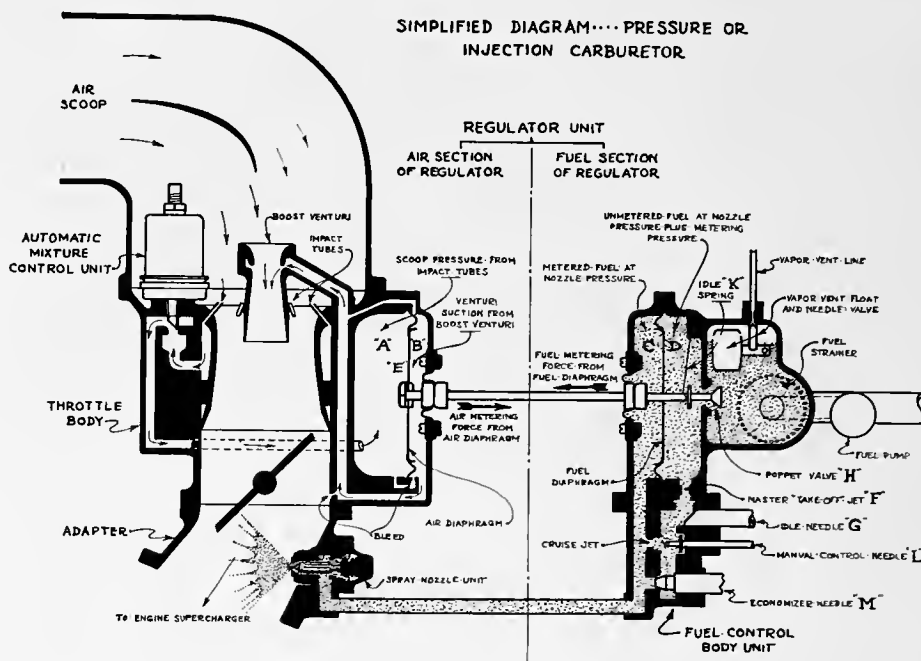
By G. H. Gill, Engr. Dept.

OPENING an engine from 200 to 2,000 horsepower in a few seconds, flying upside down at several hundred miles an hour, expecting an engine to run the same at 10,000 as at 10 feet altitude, feeding an engine with 230 gallons of gasoline an hour at take-off, or only 50 gallons for long range cruising, makes tough going for that old standby, the float type carburetor; in fact, so tough that it is beginning to drop back in the race.

The modern carburetor has to supply the correct fuel mixture to an engine on the ground, at any altitude, right side up or upside down, pulling out of a dive, at high power or low power. It has to be as simple as possible, be foolproof, it cannot encourage vapor lock, which is the boiling of gasoline in the fuel system, and above all, it must not collect ice. The difficulty of meeting these demands with the float-type carburetor has led to the development of the pressure-type carburetor. In this type, the fuel is always under pressure from the time it leaves the fuel pump until it is sprayed into the intake passage of the engine. Keeping the fuel under pressure serves two purposes: first, it lessens the chance of vapor lock, and second, it provides pressure atomization of the fuel as it mixes with the air entering the engine.

By locating the spray nozzle in the carburetor adapter, or actually in the engine intake to the supercharger, enough heat is transmitted to the mixture through the walls of the passage to prevent the formation of ice on the metallic surfaces.

There is no really simple mechanism for giving the proper fuel flow to the engine under all conditions of operation. The principle of operation of the float type carburetor is simple, but by the time the carburetor is made practical, it is complicated. On the other hand, the pressure carburetor starts with a complicated



idea, but the final mechanism is relatively simple.


Basically, the pressure carburetor is divided into three units: the throttle section, the fuel metering assembly, and the injection nozzle.

The throttle unit is similar to an ordinary float type carburetor with butterfly throttle valves, throat venturis, and an altitude compensator. There are in addition, however, small venturis held above the centers of the large ones. These are the "Boost Venturis", which control the flow of fuel.

The fuel metering assembly is the heart of the carburetor. Its operation depends on the balancing of the pressures exerted by the flow of air and fuel through the carburetor. The air pressure generated by the impact of the entering air on the small impact tubes around the top of the carburetor is transmitted to the chamber A in the body of the carburetor. Chamber B, which is connected through another air passage to the throats of the boost venturis, is separated from chamber A by the flexible diaphragm E, called the air diaphragm. The pressure in A and the vacuum in B force the diaphragm outward, opening the fuel poppet valve H in the fuel section of the regulator. Fuel thereupon flows through the valve, through the metering orifices, and into the injection nozzle. The flow through the metering orifices causes a certain pressure drop across the openings; this pressure is applied across another diaphragm,

the "fuel diaphragm," in such a manner as to oppose the force exerted by the air diaphragm. Then, as the fuel flow increases, the pressure drop across the orifices increases, and the fuel diaphragm forces the valve to close slightly, this movement of course cutting down the fuel flow slightly. The control unit finally comes to a position where the two forces are balanced. In this position, the fuel is properly metered so as to give the correct fuel-air ratio to the mixture going to the engine. If the amount of air flowing through the carburetor is changed, say by closing the throttle valve, the air force on the diaphragm decreases, the fuel force closes the poppet valve until the fuel pressure equals the air pressure, and again the proper mixture ratio is established.

So far so good, but such a simple carburetor would never work on an airplane. First, there is the matter of altitude. This simple carburetor would get richer and richer as the airplane climbed because the pressure from the impact tubes and the suction from the venturi would change with the density of the air. To correct this, an altitude compensating device is used. This is a gas-filled syphon bellows which operates a metering rod in the air passage between the impact tubes and the air chamber in the carburetor body. As the airplane climbs, the pressure becomes less outside of the bellows, and the gas expands. The expansion moves the metering rod to increase the restriction in the air passage, decreasing the air pressure on the air



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metering diaphragm, and so preventing its opening the fuel poppet valve to give an enrichment of the mixture at altitude.

Moreover, the fuel air ratio is not the same for all engine output powers and operating conditions. For full power in take-off and high speed, it is necessary to have a very rich mixture. For normal operation on cruising a medium value is used, while for long range cruising, a mixture as lean as the engine can take without overheating or loss of power, is desired. In order to get the different ratios, the carburetor uses several fuel metering jets of different sizes. The pressure drop of the fuel flowing through the jet is the controlling factor in the fuel metering. This pressure drop is dependent on the flow and on the jet area. The smaller the jet, the smaller the fuel flow to give a certain pressure drop.

The smallest fuel flow in the carburetor occurs when the engine is idling; accordingly, the idling jet is the smallest. This jet is the restriction in the passage F formed by the sloping side of the rod G. The fuel flows down the passage, through the master take-off jet in F, the idling jet and the cruise jet. The take-off and cruise jets are so large relative to the idle jet that there is no appreciable pressure drop across them at this small fuel flow, and the idle jet is said to "hold control." Now the air flow at idling is so small that it is insufficient to open the valve H, it therefore being necessary to use the idle spring K to hold the valve open. In this case, the mixture is determined by this spring and not by the air pressure on the air section of the regulator. As the throttle is opened for increased power, a cam on the throttle shaft pulls out the idle rod, removing the restriction in the passage. The cruise jet now becomes the smallest area in the flow and assumes control. This jet is much larger than the idle jet, so a much larger fuel flow through it is necessary to produce the pressure to operate the fuel diaphragm. At the same time, the increase of air flow to the engine has increased the pressure on the air diaphragm, which is reflected in a greater fuel flow to obtain balance. The régime under which the carburetor is

now operating is called the "Automatic Rich Cruising Condition." This is the richest cruising condition, and the fuel air ratio is held constant for any altitude by the automatic altitude control. If it is desired to have a leaner mixture, the manual mixture control is moved to "Automatic Lean", which inserts the pin L into the cruise jet, cutting down its area. Whatever mixture is set by the manual control is held automatically by the altitude control.

If the normal mixture control is moved to the extreme lean position, the collar on the pin L completely closes the jet and the full flow is entirely shut off. This position is known as the "Cut off" position, and is used to stop the engine. Stopping an engine by cutting off the fuel supply insures that the engine will stop. It sometimes happens that if only the ignition is turned off, some glowing point, like a piece of carbon or a spark plug point will be able to ignite the charge in the cylinder.

As the throttle is opened beyond the cruising condition, a third spring loaded diaphragm, not shown on the diagram, begins to open the economizer needle M. This action provides for the increased fuel flow necessary at the higher powers. In addition to the normal increase of fuel, the economizer needle enriches the mixture considerably. The fuel flow increases at a rate dependent on the strength of the spring behind the control diaphragm and on the taper of the needle. The maximum fuel flow is finally limited by the take-off jet in the passage F.

The metered fuel passes from the carburetor proper to the spray nozzle in the adapter unit. The nozzle is adjusted so that it opens only when the fuel pressure is greater than 4 pounds. There are two reasons for this adjustment: first, this is the only point in the carburetor where the fuel is automatically shut off when the engine is not operating, and second, the fuel, being sprayed into the intake passage

under pressure, is completely atomized. It is from this pressure spraying action that the carburetor gets its name. The spray has definite advantages because there is plenty of power available for the spraying, the pressure being derived from the fuel pump and not from the relatively small amount of power available from a venturi, which produces the spray in the ordinary carburetor.

In addition to the major items mentioned, there are a number of smaller items that go to make up a successful carburetor, one of these being the accelerator pump. In the pressure carburetor, this pump is located in the adapter casting. It consists of a chamber divided into two parts by a flexible diaphragm. One side of the chamber is connected to the air in-take passage below the throttle valve and has a spring which resists the suction from the intake. When the throttle is closed the suction is strong enough to overcome the spring, and the other side of the chamber, which is connected to the fuel pipe near the injection nozzle, fills with gasoline.

(Continued on page 18)

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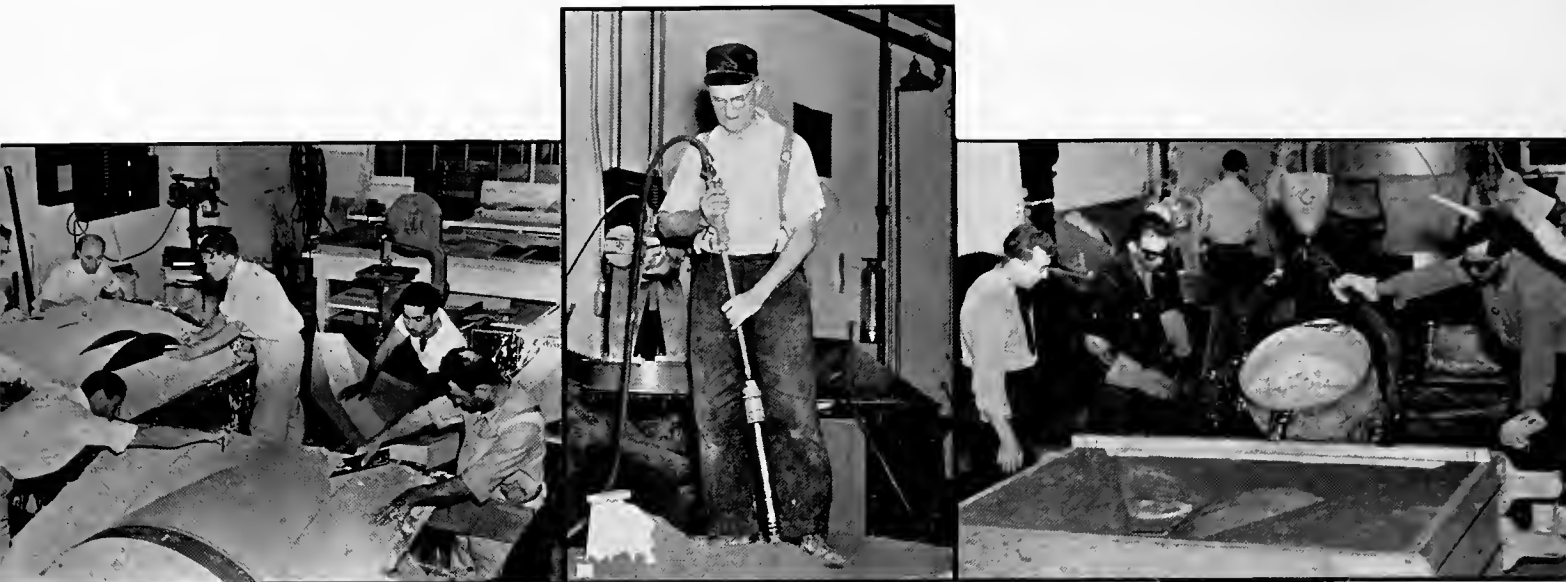
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SLAM!

By Larry Boeing

ACTIVITIES on the various war fronts may be a matter of polite operations but activities in the Drop Hammer Department at *Consolidated* are anything but polite in manner . . . or sound!

It is in this newest of *Consolidated's* departments that metal is really "slapped" around into its proper place and shape.

The department is equipt with eight Drop Hammers of various sizes, and this is a bit of an article to acquaint *Consolidator* readers briefly with the operations that cause all the noise . . . and the men who control the "slapping around" operations.

First of all you must realize that sheet metal is pliable to an extent, compressible, able to stand pulling, tugging, beating, pounding and stretching. Like human muscle, it will get harder and tougher as you work or exercise it. But metal does one thing more: it becomes brittle, and it cracks when over-worked. Therefore no fighter ever entered a ring with more concern being exercised over his condition than that shown for the piece of flat metal which goes through the drop hammer forming process.

Airplanes are built up of various materials and the choice of a particular material for a particular part depends upon the service it will be expected to perform, or the medium in which it will operate. This means that a variety of materials are used, each having a set of somewhat differing characteristics which must be con-

sidered. Like a fighter, the hammer operator must understand these characteristics, and plan his "attack" accordingly. In the case of aluminum alloys, most of which are Alclad or 24ST Dural sheets coated with a thin layer of pure aluminum, the material can be worked as received, in the annealed condition. As it is given a "going over" by the hammers, it becomes toughened and must be annealed. This is accomplished by dipping the work-hardened area into a pot of molten lead, or by

WHAM!

giving it a heat treatment through the regular channels, to bring it back to the annealed state. In other words to bring the material to a uniform hardness throughout and remove the variances of hardness which might cause cracks to develop.

Drop hammering is not a new process,

William Raymond Robbins ramming special moulding sand around a plaster pattern. Equipment is pneumatically operated as is vibration type sifter in background. This department is completely equipt with overhead handling equipment that operates over entire floor area.

Gene Harrison, Department Foreman observing Don Dawson and Lon Carona pour molten "Kirk-site", a zinc alloy into sand mould.

but the last few years have found more and more industries utilizing this process to advantage in their own production problems. Along with such usage, metallurgists have developed special steels or other materials best suited to this type of forming.

With the development of the all-metal airplanes came a new technique in drop hammering. The high tensile aluminium alloys did not perform like the ferrous or iron base metals. Many new problems were encountered . . . and solved.

This brings us to the point of considering just how the process is utilized and who make the patterns and build up and finish the dies so that the hammer men can "knock out" the required items.

First we must remember our good friend "Father" Coughlin and his boys who loft the profile templates and others

BANG!

which the patternmakers follow when making up plaster patterns. The woodshop also helps with frames and large models of complete airplane units. These are delivered to John Woodhead, an old master at pattern-making in all its branches, who plans his jobs, taking into consideration previous determined pro-

cedure that has been discussed with G. V. Harrison who is in charge of all drop hammer operations, and Al Ambrose, Tank department foreman; the Drop Hammer department being a unit of the Tank department.

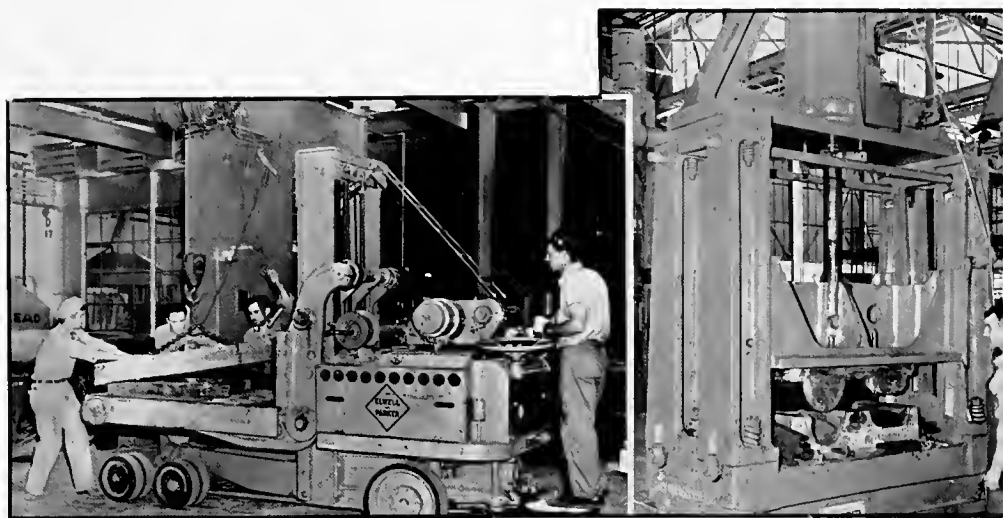
D. D. Dawson oversees and assists in the fabrication of the hard base die made by pouring molten "KirkSITE" into the cavity of a sand mold. The cavity contours following the shape of the previously mentioned plaster cast or model.

W. Sweethorn and his boys make the lead punches by pouring molten lead into a form built about the hard KirkSITE, or zinc alloy die. The surface of the die is given a protective coating, and this prevents any adhesion between the punch and die.

R. Jamison and his helpers finish the cast punches and dies to correct size by working them to templates furnished by the Loft department.

C. F. Pjerrou is in charge of all actual hammering processes and is direct assistant to supervisor G. V. Harrison. Both of these men have had years of hammer experience. Gene Harrison has spent much time with drop hammers, having worked at several aircraft factories, and he is well acquainted with modern aircraft construction.

This department with its elaborate equipment, all massive in size, owes a great deal of its smoothness of operation to the carefully laid plans and installations of equipment. Much time and effort were expended and problems were discussed with leaders in the construction engineering field to determine the correct type of base needed to absorb the shock



when dies weighing as much as six tons are "rammed" together.

All this force is required to mold, press or hammer the piece of material into its required shape. Yes, aircraft materials are tough, and nothing less than a Dempsey or Louis wallop can make it stay put.

Three types of hammers are in use: Pneumatic, hydraulic and a rope controlled unit. Their operation control is so sensitive that seasoned operators can exert any degree of "Wallop" they desire, from light speedy "jabs" to "knockout wallops."

Drop hammering necessitates preliminary design study, and its advantage is the elimination of parts by combining into one detail all the separate details usually found in riveted aircraft constructions. The savings in time and manufacturing costs make the use of drop hammer parts a practical necessity.

True, this department is noisy, and the

1. Powerful and efficient handling equipment marks the Drop Hammer Department as an example of modern manufacturing efficiency.

In this picture Joe Havelick and Jack Scott are grinding a large die block while Lou Carona operates the pneumatic overhead hoist. At the controls of the Lift Pipe Platform truck is Cloyd Coates. The truck with a capacity of 30,000 lbs., is practically indispensable. The platform can be elevated to correspond with the level of the Hammer Bed. By an arrangement of sheaves and pulleys the truck's power unit can be utilized to skid the dies into place without manual effort.

2. Dies are bolted or clamped into position and Lloyd Barkuloo is giving the setup a final checkup before the sheet material is inserted between the halves of the dies. This photo shows, besides the sturdiness of construction of the Hammer itself, the control mechanism and air exhaust muffler. The die shown is making both halves of a unit in one operation.

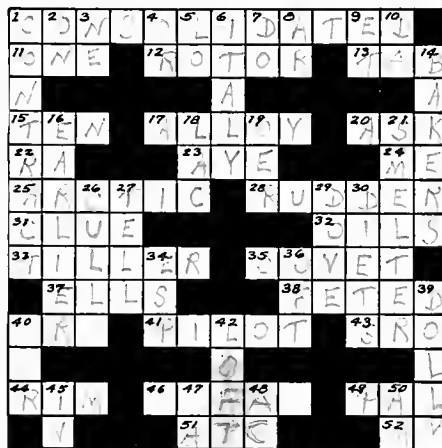
bank of hammers are usually referred to as "Thunder Row", but all the noise seems necessary because a good fight is going on. A stubborn sheet of material doesn't want to be somebody, so the drop hammer man just takes it and changes its mind . . . Slam WHAM! BANG!!

CROSSWORD PUZZLE

Engineer W. E. Eldred engineered this neat bit of crossword puzzle into existence . . . so, go to it, you puzzle fans . . . but just remember that taking clues and solving for the mystery is an easy task, alongside of composing a mystery! Note that the "theme" of this crossword stickler is a formation flight of PBYs, with a few scattered clouds. It'll be nice flying if you can sail thru this in an hour . . . and don't question the definitions. We did, and Mr. Webster is still chuckling over our ignorance.

VERTICAL

1. Agreement.
2. Preposition.
3. Compass Point.
4. Conjunction.
5. Behold.
6. Dictator Nation.
7. Accomplish.
8. A measure of area.
9. And (FR.)
10. Prosecuting Officer (Abbr.)
14. Pastry Makers.
16. Preceding in Time.
18. A Resinous Substance.
19. Across.
21. Ore Refinery.
26. A Dupe.
27. Relate.



29. Bird.
30. Selected Menus.
34. Especially (Abbr.)
36. Frequently.
39. Carriage for Handling Airplane on Ground.
40. Perfect Golf.
42. Layout Dept. of Aircraft Plant.
45. Preposition.
47. Musical Note.
48. Type of Electrical Current.
50. To Be.

HORIZONTAL

1. San Diego Concern.
11. Unit.
12. Lifting Part of Auto Gyro.
13. Auxiliary Control Surface.
15. Decade.
17. Metallic Mixture.
20. Request.
22. Sun Deity.
23. Always.
24. Personal Pronoun.
25. Region Covered by Wilkins in Guba No. 1.
28. Airplane Control Surface.
31. Aid to Solution.
32. Lubricants.
33. Rudder Control (Naut.)
35. Desire.
37. Measurement of Length (Pl.)
38. Honored by Feast.
40. A Lever.
41. Flier.
43. Sign at Full Theatre.
44. Edge.
46. Carrion.
49. Friend.
51. Government Sanction of Commercial Plane or Engine.
52. Pronoun.

"I see they have barred Camels from the streets of Jerusalem because of the hazard to traffic."

"Well, maybe they know their business, but over here we could use some traffic that could go seven days without a drink."

PRESSURE CARBURETORS

(Continued from page 15)

When the throttle is opened, the vacuum is broken and the spring, pressing against the diaphragm, forces the charge of gasoline through the connecting tube to the nozzle and out into the intake. In this way, when the throttle is opened, the extra quantity of fuel necessary for acceleration is injected into the engine. Another item, which guards against vapor lock, is a small float and valve in the passage where the gasoline enters the carburetor. Any air or vapor entrapped in the fuel is liberated and rises to the top of the chamber and when enough has accumulated, the float opens the valve and allows the gas to escape.

So, though the carburetor may begin simply enough, by the time it does this, and has to take care of that, it begins to get complicated. It represents years of experience in practical operation, months of skilled engineering to meet its problems, and many hours of machining to make the precision parts of which it is made.

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AERONAUTICAL I. Q.

1. What country holds the landplane maximum altitude record?
2. How does the United States rank with other countries regarding International Aircraft records as given in latest FAI* reports?
3. Name the country ranking first in official aircraft records.
4. The first military "aeroplane" in the world made by Wright Brothers is located in what country and where?
5. How many aircraft manufacturers are there in the United States?
6. Air transport lines in the U. S. are now operating how many airplanes on domestic and foreign routes?
7. The first airmail route established by the Post Office Department was between what two cities?

8. Federal Airways within the United States cover how many miles?

9. How many pilots hold certificates in the U. S. at present?

10. The only flying boat that ever flew around the world and at the world's greatest diameter was built by what manufacturer?

*Federation Aeronautique Internationale.

(Answers Page 24)

TID BITS

By Bill Gilchrist

You wouldn't give much for a man's word if he won't keep it . . . and no one else will take it.

Life is full of ups and downs . . . keeping expenses down and appearances up!

Just about the time you get a youngster taught to talk, you insist on his keeping quiet.

What do you suppose makes the western prairies so flat? The sun sets on them every night.

"THINGS WORTH WHILE"

He rang in a little sooner
Than the fellows in the shop . . .
And stayed a little longer
When the whistle ordered "stop" . . .
He worked a little harder
And he talked a little less
And he seemed but little hurried
And he showed but little stress.
For every little moment
His efficiency expressed . . .
Thus his envelope grew just
A little thicker than the rest . . .
He saved a little money
In a hundred little ways . . .
He banked a little extra
When he got a little raise
A little "working model"
Took his little leisure time
He wrought each little part of it
With patience sublime . . .
Now it's very little wonder
That he murmurs with a smile . . .
As he clips his little coupons . . .
"Aren't the little things worth while?"

—Selected—Bill Gilchrist.

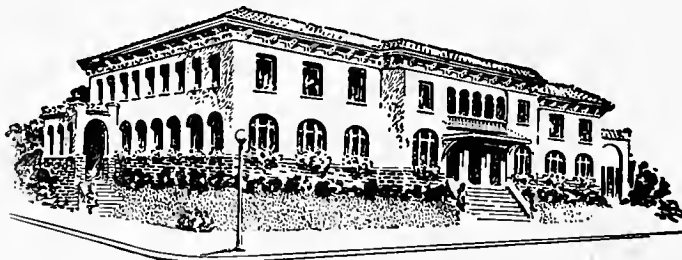
The Curtiss Propeller division of Curtiss-Wright Corp. has announced the development with the cooperation of the U. S. Army Air Corps, of the first four-bladed controllable propeller. To absorb the horsepower being developed in some of the new engines with the now conventional three-bladed propellers, it would be necessary to increase the diameter to such an extent that a larger and heavier landing gear would be necessary. With the shorter four-bladed propellers the engines can be spaced closer together with a saving in wing structure weight.

Flight Analyzer Barograph Checks Altitudes

One transcontinental airline recently made installation of "flight analyzers," automatic recording instruments which continuously chart altitudes maintained by planes during flight, rates of climb and descent, and other pertinent flight information.

Before every flight, a sealed barograph is installed in the rear of the plane. In the device is a fresh chart of the division, scaled to time and altitude. Self-inking pens, one actuated by a barograph and the other electrically, record the elevation of the plane as it climbs, maintains cruising level and descends, and also the periods during which the automatic pilot controls the flight and when the ship's radio transmitter is in use. At the completion of the flight, the sealed instrument is removed. Its chart is analyzed to check the altitudes maintained during every minute of the flight, as well as other features of the trip.

Thus the flight analyzer provides a positive check on the maintenance of the prescribed flight altitudes on every division of the airline system.



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The Consolidated built American Export Airlines' twin-engined survey ship caught as she flew out of New York on one of her trans-Atlantic flights. Note the Statue of Liberty.

AMERICAN EXPORT AIRLINES FLIGHTS

(Crews of 6—Model 28)

| Date | From | To | Miles Statute | Buoy to Buoy Time | |
|-----------------|-------------|--|------------------|----------------------|----|
| | | | | (Hrs. Min.) | |
| 6/30/39-7/1/39 | New York | Horta, Fayal, Azores | 2,384 | 16 | 58 |
| 7/2/39 | Horta | Lisbon, Portugal | 1,053 | 8 | 01 |
| 7/3/39 | Lisbon | Biscarrosse, France (via Cape Finisterre) | 718 | 6 | 01 |
| 7/4/39 | Biscarrosse | Marseilles, France (via Garonne Valley) | 356 | 3 | 01 |
| 7/6/39 | Marseilles | Biscarrosse, Lisbon | 1,074 | 8 | 55 |
| 7/7/39 | Lisbon | Horta (survey San Miguel and Pico) | 1,100 | 10 | 24 |
| 7/8/39-7/9/39 | Horta | New York | 2,384 | 22 | 48 |
| 7/14/39 | New York | Botwood, Nfld. | 1,070 | 7 | 11 |
| 7/14/39-7/15/39 | Botwood | Foynes, Ireland | 1,995 | 14 | 10 |
| 7/16/39 | Foynes | Biscarrosse, Marseilles | 730 | 8 | 56 |
| 7/17/39 | Marseilles | Marseilles, Biscarrosse, Foynes | 730 | 8 | 39 |
| 7/19/39-7/20/39 | Foynes | Halifax, N. S. | 2,502 | 23 | 01 |
| 7/20/39 | Halifax | New York | 589 | 4 | 40 |
| 7/28/39 | New York | Botwood | 1,070 | 7 | 51 |
| 7/28/39-7/29/39 | Botwood | Biscarrosse | 2,528 | 18 | 27 |
| 8/1/39 | Biscarrosse | St. Nazaire, France, Biscarrosse | 450 | 4 | 01 |
| 8/2/39 | Biscarrosse | Lisbon (via Cape Finisterre) | 718 | 5 | 50 |
| 8/3/39 | Lisbon | Horta (survey of Terceira, Graciosa) | 1,100 | 8 | 53 |
| 8/3/39-8/4/39 | Horta | New York | 2,384 | 19 | 45 |

Total 24,935 St. Miles

One day Mark Twain arrived in a Canadian hotel and, glancing over the register, took note of the signature of the last arrival.

"Baron and valet."

Twain signed and the clerk looked at the register and found:

"Mark Twain and Valise."—Curtiss Fly Leaf.

Hotel Clerk: "Why don't you wipe the mud off your shoes when you come in?"

Hillbilly: "What shoes?"

An eastern Dude came out west and bought a small ranch. He then found that he had an even \$100 left with which to stock it, and also found that he could buy calves for \$10 each, lambs for \$3 each, and rabbits for 50c each. He decided he wanted some of all these animals on his ranch, and being of a mathematical turn of mind, he figured out how he could buy an even 100 animals with his \$100. How many of each did he buy?

(Answer Page 21)

BEAUTIFUL AND DUMB

Both beautiful and dumb

Must my true love be.

Beautiful, so I'll love her.

And dumb, so she'll love me.

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MOUNT WHITNEY CLIMB...

By D. R. Kern

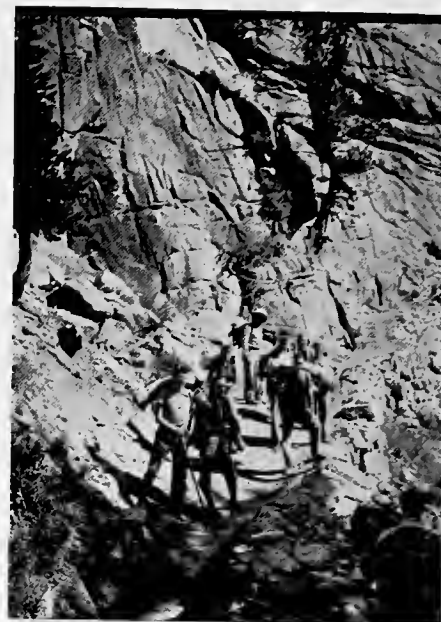
THE Consolidated mountain goats, a dozen in number set out one Friday night last month for Lone Pine and Whitney Portal to conquer Mount Whitney the ultimate goal of all mountain lovers. The group or "herd" of goats consisting of George Landy, Cora Hotchkiss, Walter Beyer, Mrs. Beyer, Arnold Kaiser, Joe Williamson, Henry Mandolf, Dean Carlson, Pauline McEwen, Tom Gascoyne, Jones and Russ Kern, left the Portal (8371') about 6 a.m., after a few hours rest in the clear, cold mountain air above Owens Valley.

The scenic trail starts its long thirteen mile zig-zag about fourteen miles west of Lone Pine at beautiful Hunters Flat, between mighty granite walls. Lone Pine creek is followed for several miles and is a sight long to be remembered with its turbulent waters cascading over many beautiful waterfalls. Lone Pine lake was passed at 9,975' just before coming to the meadows of Ibex Park at Mt. Whitney Outpost camp (10,300') where "sissy" mountain climbers usually park for the night before their attack of majestic

Whitney. Here we had breakfast and a half hour's rest under stately pines before launching out into thinner air. At about 11,500' just above mirror lake and under the last stunted wind-torn pine and cedar trees of the timber line four of our party had to retire due to lack of what it takes. A few miles further on we entered a world of mighty walls and boulder strewn basins with beautiful Consultation lake to our left. In this wilderness of stone, some of the loveliest of high country wild flowers grow. Here beside rushing Lone Pine creek with its cold snow-water we camped for an hour eating our lunch and napping in the sunshine at about 12,000'. Here also, unable to get up due to tightening muscles, we left another member of our party. The seven remaining goats pushed onward and upward thru fields of everlasting snow zig-zagging up the steepest slope which forms the great divide of the mighty Sierras. We had an experience many mountain climbers do not get when nearing the divide. Four workers were blasting out a new easier trail high above us and it was thrilling to watch the tons of rock come tumbling down thundering thousands of feet below and plunging into snow fields. We reached the Whitney Pass (13,380') about 4:30 and stopped to rest briefly on the backbone of the Sierras just inside of Sequoia National Park. To the west lay the vast wilderness of the park, many small lakes with their crystal clear waters, the Kern river canyon and over the great western divide the haze of the San Joaquin valley. To the east the Owens valley with the Inyo mountains and Death Valley beyond.

A short distance beyond the pass the trail drops to the base of Muir Peak, a wild crag over 14,000' high named in honor of the well known John Muir, naturalist, author and first president of the Sierra Club, then continues upward, clinging to the steep west side of the mountain, from time to time crossing the bottoms of giant notches in the main ridge, enabling us to get startling glimpses of the Owens valley and mountains beyond.

As darkness came upon us we were slowly making our way over the gentle granite strewn west face or top of Mt. Whitney itself, reaching the old stone shelter (built by the Smithsonian Institute for cosmic ray research work in 1909), about seven o'clock. We were so tired out we could barely prepare our evening meal and so cold it took quite an effort to move



any part of our bodies. We made a fire but the smoke drove us out the shelter. So we just "collapsed" on the ground floor of the hut wrapping ourselves in blankets until morning.

During the long, long hours of the night the peak was attacked by three severe snow storms and everything was white next morning. It was so cold our food all froze during the night so it was quite a task eating breakfast.

A plaque listing the names of our party was cemented to a huge granite block N.W. of the six-foot rock cairn which stands on the very eastern edge of the summit 14,496'.

Looking straight down, over 2,000' be-



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low the eastern edge one sees a beautiful little lake, the highest in America, with a large mass of emerald green ice in the center. Far in the valley below "hair line" roads were seen shining in the sun as it had been raining all night. Vast panoramas could be seen thru openings in the clouds. And what a sight to behold. There we were actually looking down upon the tops of mountains more than 13,000 and 14,000 feet high. To the southeast we could see the location of Death Valley and the lowest point in the United States 14,776' feet below us.

We all signed the "Who's Who" in the Sierra Club register box before departing at seven a.m. after exactly twelve hours on the summit—all feeling fine and in high spirits to think we were the highest citizens in the U.S.A. for the night—including those traveling over any airline too as we were nearly three miles above sea level.



BUOYS WILL BE SERVED

Consolidated has two buoys for mooring the flying boats in the bay. There is but one anchorage between them, however. This enables one buoy to be serviced ashore while the other does duty, and they require servicing every now and then as time affords. The buoys are plenty stout, heavy, and until recently, quite awkward to handle, since in addition to the buoys it is necessary to hang onto about 30 feet of 1½-inch stud link chain, which is attached to a large block of concrete resting in the mud in the bottom of the bay.

If you've ever tried to handle a heavy and bulky object over the side or stern of a skiff, you'll appreciate why a special servicing float was rigged up, utilizing a number of full-sized paint drums for buoyancy, to which is attached a work platform with a tripod arranged in the center over a large hole in the platform. The tripod arrangement allows a sling or hoist to be rigged directly over the mooring buoy when it is necessary to carry out the servicing operation. The pull is then directly over the center of buoyancy and not off center as it would be with a boat. The new servicing float also serves admirably alongside any of the flying boats, should servicing be required from outside as they ride at their moorings.



A solid cloud depth of 22,000 feet was recently observed.



Answer: 5 calves, 1 lamb, and 94 rabbits.



Top: New species of deer. Center: The usual species of deer. Below: Glenn Hotchkiss set his camera, ran and got in the picture (using a timing device).

"DANIEL BOONE" MacEWAN

Four years ago this fall, Harry MacEwan, while deer hunting on Thomas Mountain, spotted a swell looking deer which was so far away he could not determine whether it had horns or not. He maneuvered around by crawling and sneaking through the brush for nearly an hour, so that he could get close enough to make a sure thing of it. With his gun to his shoulder he cautiously raised up to look at a beautiful, brown-eyed Jackass. It being too good to keep, he told us of his misfortune, but at the same time vowed there'd be a day.

On Friday, Oct. 13, 1939, Mike Kollman, Hap Forsythe, Glenn Hotchkiss and our "Hero" set out for the Aguanga Mountains and at daybreak were all situated on nice lookouts near the peak. About 7:30 A.M. Harry turned his head to see a beautiful buck standing not thirty feet away. After a slight touch of "buck fever," and scattering two random shots, he connected with a beautiful shot. Harry immediately sat down to recover before giving the deer a close inspection. As he sat there, dreaming of venison steak and other things good, a nice three point buck made the fatal mistake of clipping a branch with its horn. Again Harry cut loose, but this time with his second shot caught him in mid-air with a perfect neck shot, just to make good that vow.

After considerable explaining, photographing and demonstrative shooting by Harry, we started winding our way down the mountain realizing how true it is that a man can be down but not out. Instead of "Jackass" MacEwan, he is now known as "Daniel Boone" MacEwan.



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BOWLING NEWS

By H. K. Clay

WITH the coming of the New Year and the Consair bowling leagues nearing the midway point of their competition, statisticians of the Sunshine Alleys are busy gathering data on the various teams and individuals. Four teams are setting a wicked pace for the pilot's seat of the fourteen team league whereas two quints are making the strongest bids for top honors of the Engineers circuit.

The Production No. 1 team with Harvey Muck at the helm has the advantage with 33 points won and 11 lost while the Finish team made up of M. Speed, Ed Drews, Ed Banks, Larry Granstedt and Roy Combs is hot on their trail with 31 won and 13 lost. Third position is held jointly by the No. 2 team from Production and the Engineering quintet, each team having cornered 30 points and lost 14.

Of the Engineers' league The Armament group is in the driver's seat with 27 won and 13 lost, and the Flap team is matching scores with 26 wins and 14 losses.

Three teams have won top honors to date for perfect attendance. The Purchasing team made up of Frank Meer, Eddie Jones, Frank Fields, Paul Hoch and Frank Cary have yet to take a penalty for an absent player. A similar record is enjoyed by the Engineering team composed of M. C. Weber, A. H. Kimble, Carl Heim, Irving Craig and Tom J. Coughlin. The league leaders, Production No. 1 with W. N. Liddle, Jim Wilkinson, Lloyd Bender, Harvey Muck and Arnold Springer on its roster have likewise had a perfect showup record.

In going over the records it was decided that "Whitey" Dake of the Tank team proved himself to be the most valuable player in the league, with second honors in this connection going to Roy Coykendall of Production No. 2. "Whitey" has rolled in every match since the start of the league and failed to bowl his starting average but once. Roy Coykendall fell below his average twice but his superb shooting in the past six weeks gives him second honors.

The highest average of the league is accredited to Hal Leppart of Production No. 2 who has amassed a total of 6531 pins during the 36 games for an average of 181 surpassing the mark of Mike Brooks of Hull No. 1 who has a grand total of 6369 pins with an average of 176.

The highest three game series to date was turned in by Hal Leppart who burned up the Sunshine lanes with a sizzling 639. Roy Combs of the Finish team polled a 625 for second honors while third spot of this division goes to Mike Brooks with a 607.

A further survey of the Sunshine records show that in addition to the foregoing scorers high team series were registered as follows: Eddie Lang, Experimental, 602; W. G. Erickson, Maintenance, 589; Louis Peters, Machine Shop, 585; T. J. Coughlin, Engineering, 581; Frank Cary, Purchasing, 573; W. N. Liddle, Production No. 1, 547; "Whitey" Dake, Tank, 542; Stephen Gardner, Hull No. 2, 532; Louis Miller, Raw Material, 531; Bert Freakley, Sheet Metal, 502, and R. Knapp, Final Assembly, 492.

Of the Engineers' league Tom Coughlin topped the Loft No. 1 by copping a 594 series, Irving Craig showed the way to the Loft No. 2 team with 540, Louis Loyka paced the Loft No. 3 team with 488, and Ken Whitney starred for the Fixed Equipment gang with top score of 505. A. C. Holden has a 550 series to his credit and leads the Hull team while Walter George

is pacing the Armament crew with 505. Harlan Fowler has a clinch on the Flap department keglers with 515 and A. Abels paved the way for General by pegging a 522 series.

Two quints are off to a bad start and will certainly be compelled to do something better in the future unless they expect to remain in the doghouse. The Raw Material and Final Assembly teams have only obtained a morsel or two in the league pin-biffing contests and their outlook seems anything but optimistic. They have had so many changes in their team personnel that consistent shooting to them has been an utter impossibility. In a handicap league they should be making a much better showing and perhaps they will snap out of it after the first of the year.

Irving Craig of the Engineers has complained that the shadows on the alleys interfere with his kegling. Last week he turned in games of 193-212 and 156 for a 561 total. If the lighting system at the Sunshine were altered to appease the wrath of the irrepressible Irving the rest of the teams might not have a chance. And perhaps there may be more truth than poetry in this quip.

What are we going to do with W. G. Erickson, lead-off man for Maintenance who tours the layout for 589 in the Purchasing-Maintenance match? Erick started out with 200 then tallied 169 and trotted home with a mere 220. That is the kind of kegling that warms the heart of the most frigid team captain.

Roy Combs of the Finish team has finally let his light out of the bushel basket. On December 15th, Roy accumulated a 625 series, getting games of 168, 242 and 215 in so doing. For the benefit of the public we might add that Combs, despite his apparent naivete is one of the city's most experienced tournament players. We recall his being on several title holding teams in the distant past and remember that he was usually regarded as the spark plug of the team.

The league standings at press time follow:

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CONSAIR LEAGUE

| | Won | Lost |
|------------------|-----|------|
| Production No. 1 | 33 | 11 |
| Finish | 31 | 13 |
| Production No. 2 | 30 | 14 |
| Engineering | 30 | 14 |
| Purchasing | 28 | 16 |
| Hull No. 1 | 28 | 16 |
| Experimental | 25 | 19 |
| Maintenance | 24 | 20 |
| Machine Shop | 23 | 21 |
| Hull No. 2 | 16 | 28 |
| Tank | 14 | 30 |
| Final Assembly | 8 | 36 |
| Raw Material | 6 | 38 |

ENGINEERS' LEAGUE

| | | |
|-----------------|----|----|
| Armament | 27 | 13 |
| Flap | 26 | 14 |
| Loft No. 2 | 23 | 17 |
| Loft No. 1 | 21 | 19 |
| Hull | 18 | 22 |
| Loft No. 3 | 19 | 21 |
| General | 17 | 23 |
| Fixed Equipment | 11 | 29 |

WINGS AGAINST THE SKY

Have you ever thought of the aeroplane?

Of the fragments of dreams, wooed and wrought through hours of computations and calculations, until they become blue prints?

Of the minds and machines and hands of men?

Of the experience and craftsmanship from past generations? Of the product woven until there is no more to be added, no more to be taken away?

Of the beauty and symmetry of the finished plane as your eyes follow its flight through the sky?

This miracle that has happened because of the dreams that were, and the eagerness of minds and hands of men to do?

It is as if every hand that had an infinitesimal part in its fabrication were moulded into one miraculous hand that sculptured this flawless thing out of nature.

These dreams, these calculations, these hours spent, the many hands, find their reward as the eye follows the grace and beauty of—Wings Against the Sky!

—Odin L. Thaanum.

A Russian parachute jumper, Y. M. Solodovnik, recently made a parachute jump from 32,808 feet . . . said to be the first from the region of the stratosphere. He wore a special suit . . . got down in 22 minutes, drifted 10 miles.

SAY YOU SAW IT IN
THE CONSOLIDATOR

CHAMBER STORY

It's going the rounds, this story which is supposed to have taken place in a California Chamber of Commerce: It seems that one of the local farmers had brought in an exceptionally large watermelon, and it was on display at the Chamber. A very loyal Chamber of Commerce man was guarding it from harm. In walked a stranger, and placing his hand on the watermelon inquired, "What is this, an alligator pear?"

The indignant guard of the prize was aghast. "Alligator pear? Say, where are you from anyway?"

"Why, I'm from Florida."

"That's what I thought," retorted the guard. "Get your dirty hands off that olive!"

The stakes were piling up mighty high. Finally Rastus says, "Ah call yo. What has yo got?"

"Brother, Ah is got fo' aces! What is yo' got?"

"Ah is got fo' kings . . . and a razor."

"Rastus, yo' always was lucky."

THAT'S RIGHT,
YOU'RE WRONG!

HOW do you pronounce the word H-A-L-T-I-M-E-T-E-R? Most persons pronounce this word, common to aircraft usage, with the accent on the first syllable: Al'timeter. That's wrong, according to the dictionary. The correct pronunciation places the accent on the second syllable, thus: Al tim'eter! What's the reason? Units of measure, such as centimeter and decimeter have the accent placed on the first syllable, whereas measuring devices (thermometer, barometer and speedometer) have the accent on the second syllable. Therefore al TIM'eter!

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San Diego Flying Club News

By Frank C. Buzzelli

ON December 17, 1903, two young men, Orville and Wilbur Wright made the first heavier-than-air flight at Kitty Hawk, N. C.

In commemoration of this historical date, the Alpha Eta Rho and San Diego Flying Clubs held their second competitive air meet at Linda Vista Airport. A huge crowd gathered to watch members of these clubs test their skill as pilots and bombers, in a contest, consisting of bomb dropping, balloon bursting, paper cutting and spot landing.

The judges were Lt. (jg) Richard Burns, U.S.N., Lt. (jg) Preston, U.S.N., Ensign Engle, U.S.N., Jean Tappan of the Alpha Eta Rho Club, Don Frome of the Experimental Dept. also members of Alpha Eta Rho, and Carl Hunneman, Treasurer of the San Diego Flying Club.

Deane Raine of Ryan Aeronautics was at the microphone all day and did a mighty fine job. Deane has a private license.

A unique and simple method of scoring was used. Miss Alberta Jones was the scorekeeper, a beautiful co-ed from State College.

In the balloon bursting contest, each contestant released two balloons at 1500 feet; there was a 100-second time limit in

which to burst the balloon from the time it was released, scoring one point for each second. The best score for this event was made by Jack Berg of the San Diego Flying Club. His average was 13.5 seconds.

In paper cutting the scoring was the same as in the balloon bursting, but each contestant cut the ribbon twice and his time counted from the time of his first cut to the second. John Menefee of Alpha Eta Rho won this event with an average of 12 seconds.

The bomb dropping was done from an altitude of 500 feet. Measuring from the center of the target to the spot where bomb hit, one point was given for each foot away from center. This contest was won by our own President Butterfield, and Bill Travis. Their average was 30 for the two bombs.

In the spot landing competition the throttle was cut over the spot and a normal 180° or 360° turn executed. The landing was to be made between two lines 100 feet apart. If the landing was made before the first line or beyond the second line the contestant received 100 points for that landing. The measurement was made from the first line to the point where the tail skid remained on the ground. This eliminated bouncing the tail skid in an effort to get a good score.

Frank Graham of Alpha Eta Rho won this event with an average of 53.9. Frank passed the preliminary phase of Navy training at Long Beach last summer and expects to go to Pensacola later this month. He has a limited commercial license.

All in all it was a nice meet and everything went off smoothly. It was pretty obvious that the Alpha Eta Rho Club practiced consistently since our last air meet in the spring. They were determined not to let us win 2 cups straight and showed it by displaying some mighty fine precision flying in their turns, spit S's and wing overs.

It was a close battle for possession of the trophy emblematic of superiority, but the Alpha Eta Rho Club won it and we congratulate them. They have a fine bunch of boys, and are real sportsmen.

Henry Leboffe of the San Diego Flying

Club and C. R. Page of Alpha Eta Rho headed the committee of each club in making preparations.

Bill Travis and Bud Seltenreich have been checked out for their first solo hop recently. Two of the members also received their solo license, Jack Hospers and Bob Johnston.

It would be nice for any of the fellows that have a few minutes to spare, to visit Clifford Peel, a fellow member. Cliff just had an appendix operation. Stop in and wish him well.

Our brand new Continental engine arrived from the factory last Friday and under the supervision of our flight instructor, several of the boys worked 'till 2 A.M. Saturday changing the engines in the Cub. The old engine had 1600 hours on it.



AIN'T IT ODD?

Glenn Hotchkiss tells this one: The other morning as he came to work he ran out of gas. He was lucky and coasted into a gas station. It was late, he was in a hurry to get to the plant, and all he had was a \$20.00 bill. The proprietor had difficulty in making the change. Hotchkiss said, "Well, if you'll trust me I'll come in this noon and pay you. I'm in an awful hurry."

"No, Sir," came back the reply. "We had a fellow do that once and he never came back!" The proprietor rounded up \$15.00 and gave it to Glenn, then said he'd have to go clear up to the house to get the balance.

Glenn said, "Say, listen, will you trust me to come back for my change?"

The fellow said, "Yes."



ANSWERS

1. Italy (56,046').
2. Fifth (let's get going).
3. Germany.
4. U. S. Smithsonian.
5. Thirty.
6. 346.
7. Washington and New York.
8. 25,000 miles.
9. 26,144.
10. Consolidated.

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"WE COVER THE CITY"

HOT SHOTS FROM WELDING

By "Willie" Winchell

WE welcome back Harlan Dye who has been sojourning up North. Harlan says all the rumors about his being married are just that. He claims to be sane, yet!

We understand that Clyde Walker has made application to change his name since a certain incident which happened at the County Hospital. Clyde still says, he's not a papa—but can there be two C. E. Walkers on the same street in the same block?

Johnnie Goodall stole a march on the boys and got himself married to cute little Rachel Kvondal of National City. Seems like they all fall sooner or later. Best wishes for future happiness, Johnny. Don't forget those cigars.

Frank Kastelic has invested considerable money for his Christmas present this year. He has gone, hook, line and sinker for electric train sets and has a complete outfit—remote control, switches, reverse, etc. Frank still claims he bought it for his young son but little junior is only two years old so we still say they make a swell gift for a son to give his father.

Al Milley knows by now that a nibbling machine can't be used to trim finger nails. Seems like Al tried to do just that and forgot the nail was part of his finger. Oh well, what's one hunk of finger more or less?

Somebody ought to tell Goodbody that if and when you eat fish you're not supposed to eat the bones too. He got one caught in his throat and couldn't swallow anything but soup for a week.

We wonder what Al Gatchell was doing down in Walker's Toy Dept. one Saturday during the Christmas rush? Santa Claus very seldom makes mistakes, Al.

Gus Fougeron, that well known equestrian from Bay Park has at last secured his store teeth but what we want to know is what good are they if he keeps 'em in his pocket? Gus, says he can eat those peanuts now, Jimmy.

Don James, our estimable clerk had the misfortune of trying to loop the loop in his car the other day. Don knows now it can't be done.

The Welding Dept. basketball team, consisting of, Harlan Dye, Bert Bailey, Roy Williams, Jule Aquire, and Al Miley, has started the season with a terrific bang—a loss by a scant margin but they say watch out hereafter.

It's a good thing the stores give us paper sacks. They do make swell work hats after a fashion, but the guys who need them never wear them—we wonder why.

The new Pratt and Whitney "Double Wasp" of 18 cylinders, is rated at 1,600 H.P. above 20,000 feet. This power output of 1,600 above 20,000 feet is the equivalent of 3,000 H.P. at sea level. It is believed that airplane speeds in excess of 400 miles per hour, above 20,000 feet, can readily be obtained with this engine.

"Every man must have a cemetery of his own . . . to bury the faults of his friends!" J. W. Kelly, No. 1750.

A doctor's income is not necessarily an ill-gotten gain.

It is far better to have grass growing under your feet than over your head.

A liberal education, to the modern college student, means one with plenty of spending money from the old folks at home.

"WRECKERS"

I watched them tearing a building down,
A gang of men in a busy town.
With a ho-heave-ho and a lusty yell
They swung a beam and the side wall fell.
I asked the Foreman, "Are these men skilled
As the men you'd hire if you had to build?"
He gave a laugh and said, "No indeed!"
"Just common labor is all I need.
I can easily wreck in a day or two
What builders have taken years to do."
I thought to myself as I went away
Which of these roles have I tried to play?
Am I a builder who works with care,
Measuring life by the rule or square?
Am I shaping my deeds to a well laid plan,
Patiently doing the best I can?
Or am I a wrecker who walks the town
Content with the labor of tearing down.

—Selected, Bill Gilchrist, 808.

The best thing to do about a mistake . . . is to admit it.

Politicians alone cling to the musty notion that an admission of error is a confession of weakness.—Bruce Barton.



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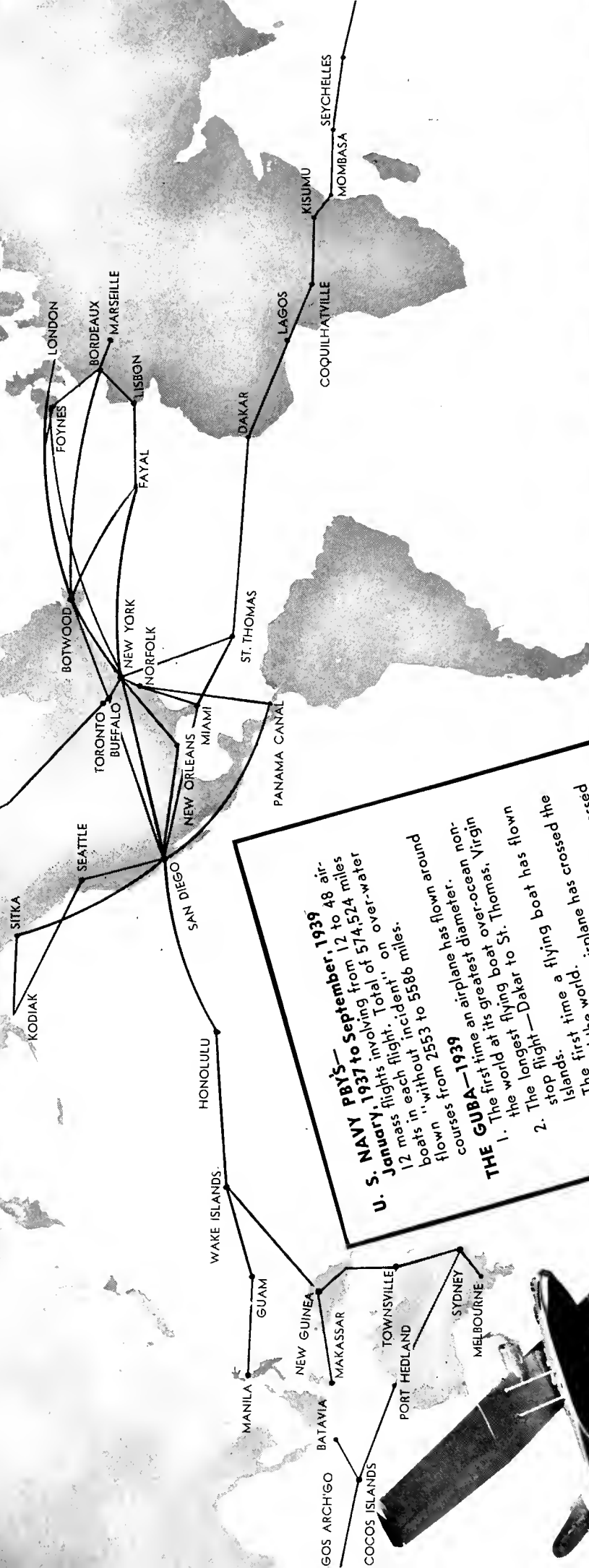
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WORLD'S RECORDS THE WORLD OVER

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U. S. NAVY PB's—September, 1939
January, 1937 to September, 1939
 flights involving from 12 to 48 air-
 boats in each flight. Total of 574,524 miles
 flown "without incident" on over-water
 courses from 2553 to 5586 miles.

THE GUBA—1939
 The first time an airplane has flown around
 the world at its greatest diameter.

1. The first time a flying boat has flown
 the longest flying boat has flown

2. The flight—Dakar to St. Thomas.

3. The first time a flying boat has crossed the
 Islands.

4. The first time an airplane has crossed
 around the world.

5. The first time a flying boat has crossed
 the Indian Ocean.

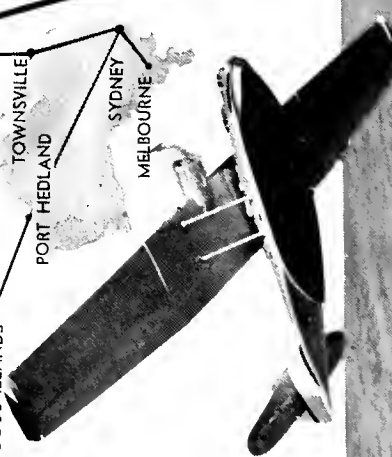
6. The first time a flying plane of the
 U. S. NAVY XPB2Y-1—August, 1939

First officially recognized Flag plane of the
 United States Navy.

October, 1938
 First four-engine airplane to be flown in a
 round trip, non-stop each way across
 the Atlantic Ocean.

MODEL 28-5—July, 1939
 First flight delivery of military aircraft across
 the Atlantic Ocean.

MODEL 31—May, 1939
 First airplane ever to utilize twin-row radial,
 air-cooled engines rated at 2000h.p. each
 for takeoff.



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CONSOLIDATOR



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Do I *need* it?
Can I *afford* it?
Can I buy it *Cheaper*?



See page 24

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CONSOLIDATOR

Volume 5

February, 1940

Number 2

COMPLIMENT . . .

In Forrest Warren's 'Half Minute Interviews' which appear in the local press, dated Jan. 7th, an interview with Mrs. F. T. Scripps is given as follows:

"The people of San Diego and its visitors certainly owe a thank-you to *Consolidated Aircraft* for the beautiful and perfect Christmas tree with its hundreds of jeweled lights, making it the most glorious tree ever seen here. As I was driving by with my four-year-old granddaughter, she said: 'It is the most beautiful Christmas tree in the world; grandmother, please drive slow so I can see it for a long time.' It is something to remember, and we both say, 'Thank you,' to *Consolidated*."

Thank you, Mr. Warren and Mrs. Scripps.

ENGINEERS . . .

Engineers who design aircraft have their troubles, too, but they also can look at the funny side of their problems. Recently an engineer at the Aeronca factory in Cincinnati came up with the following masterpiece on the trials and tribulations of an airplane designer:

"Design a plane," the head men say.
It must be built in such a way
That the dumbest mug can fly hands off,
Make the hardest landings still feel soft,
Make up for brains the pilot lacks,
Make the seats lean forward and still lean back.
Supply and demand will be the thing;
Forget the span and chord of wing.
The spar must just be six feet long,
For scraps of spruce cost but a song.
The fuselage can be tied with string
Or by a similar method hung to the wing.
It must be safe and, in the main,
Be able to withstand a hurricane.
It must be fast and not land-hot.
(What a helluva job the designer's got!)
Fast and light and comfortable, too.
With a cruising range to Timbuktu.
Of course, this is no common hack,
For it must carry the load of a ten-ton Mack.
It must climb straight up and land straight down,
But the pilot must scarcely feel the ground.
Yes, flaps and brakes and retractable gear.
Hell's bells! They must think the millennium's here.
And one last word the head men say:
"It's got to be finished by yesterday!"
On second thought, there's one thing more:
They'll have to sell at the ten-cent store.

BOUND VOLUMES

We have a few 1938 volumes of the **CONSOLIDATORS** available. These are bound in black cloth with an artificial leather grain with "Consolidator" volume and year imprinted in gold. They contain all twelve issues including the special 100 page 15th Anniversary issue. This is an opportunity to secure the entire set conveniently bound together . . . an excellent gift to yourself and family for future reference. They will be sold at cost (\$1.35 each) as long as they last. No more will be available as certain issues in the set are now exhausted. Apply Consolidator office.

MUSICIANS! ! !

A call for musicians interested in rehearsing with a symphony orchestra under auspices of San Diego nite school has been sent in to Consair.

It is felt there must be a number of musicians in the plant who would like to avail themselves of the opportunity to practice evenings with this orchestra, under the able direction of Leo Scheer.

All orchestral instruments are needed.

Rehearsals are held twice weekly on Tuesday and Friday evenings, beginning at 7 p.m. at the orchestra hall (directly behind Russ auditorium) San Diego High School.

The only charge for this activity is a fee of one dollar for the semester.

Further information may be obtained from Bill Gilchrist or call Mr. Scheer at J. 2381—or better yet bring your instruments to orchestra hall Tuesday or Friday.

LET'S COOPERATE . . .

Attention has been called to the fact that quite a number of employees eat their lunches in their cars across the street in the parking lot. In so doing some few persons throw away their waste paper and occasionally bottles. The littered waste material gives the outsiders the wrong impression about the quality of workmen we are and the bottles get broken and are a hazard to auto tires. Let's all cooperate and see to it that waste material goes into the cans provided. It's a little thing . . . let's cooperate!

DISTRESS SIGNAL

A navy plane flying back and forth across the bow of a surface ship means another plane of its squadron is in distress, mariners are advised by a hydrographic bulletin. The procedure when a plane of the squadron has been forced down is as follows:

A plane flies several times across the bow of the nearest surface vessel, opening and closing the throttle, and then flies in the direction of the plane in distress. This signal is repeated until the surface vessel has acknowledged by following the plane. If possible, the plane remains in sight of the ship until the latter sights the plane in distress. All planes resort to the use of available pyrotechnics as necessary to attract the attention of surface vessels.

If you see Jim Eldredge (Air Corps Secretary) putting on more weight, it will be because Chef Bob Summers (Tank) has been serving up more wicked goulashes for Eldredge and messmates Geo. Righter (Experimental) and Felix "Kentucky" Mattingly (Tank) at their new apartment at 3241-3rd Avenue.

B. J. ELDREDGE, Air Corps Office.

"A lecturer tells us prehistoric man was never bow-legged or round-shouldered. We can only suppose the tax burden was different in those days."—The Cleveland News.

GOLF TOURNEY

The Engineers' Golf Tournament will be held Feb. 11, at Chula Vista.

PERSONAL INCOME TAXES FOR 1939

Who Must File Returns:

Every married person whose annual income is in excess of \$2500 and every single person whose annual income is in excess of \$1000 must file income tax returns with the Federal Government before March 15, 1940, and with the State of California before April 15, 1940. Federal income tax returns must be submitted in duplicate.

Income:

Income subject to tax includes salaries, wages, interest, dividends, rents, and profits from the sale of securities and other property. The income of minor children is considered to be the income of the parent for tax purposes. Gifts or inheritances, health and accident insurance payments, and amounts received in settlement of claims for injuries and damages are exempt from income tax and should not be reported on the returns filed.

Deductions:

Allowable deductions include interest paid, uncollectible debts, losses on investments, taxes on real and personal property, automobile registration and license fees, tax on admissions, losses resulting from fire and theft, California unemployment insurance tax, and contributions to religious, charitable, fraternal, and veterans' organizations.

California income tax which was actually paid during 1939 is deductible for Federal income tax purposes, but not for State income tax purposes.

Sales tax, California gasoline tax, alimony, and Federal old age benefits tax are not allowable deductions.

Personal Exemptions and Credits:

Personal exemptions and credits for dependents are \$1000 for a single person, \$2500 for a married person living with his wife, \$2500 for the head of a family, and \$400 for each dependent other than husband or wife. A head of a family is a person who actually supports one or more relatives in one household. A dependent must be under 18 years of age or be incapable of self-support. Personal exemptions and credits for dependents must be prorated on the basis of the marital and parental status which existed during the year. Credits for dependents must be deducted by the head of the family.

In addition to the items enumerated above, the Federal Government allows each taxpayer an earned income credit of 10% of his net income.

Tax Payments:

Federal and state income taxes are payable in full when the returns are filed, or in installments of 25% each in the case of the Federal tax and 33 1-3% each in the case of the State tax.

Filing Returns:

Representatives of the Federal and state tax authorities will be at this plant during the week commencing February 12, 1940, to assist the employees with their income tax returns for the year 1939.

The days assigned to each department will be announced later.

Each employee is required to fill in as much of his or her income tax return as possible before submitting it to the Governmental representatives for review.

Question of State:—

Would a Dutch Uncle come under the classification of "Foreign Relations"?

Master Gary Joe Apple, made his appearance in the home of Mr. and Mrs. Joseph Apple on January 11th. The time was exactly 2:34 p.m. Gary Joe, needless to say, is now the apple of the eye of the Joseph Apple family! Congratulations. Little Joe Apple weighed in at 7 pounds and 10 oz.

SAY YOU SAW IT IN
THE CONSOLIDATOR

EVERYTHING FOR YOUR HOME



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SENSIBLE PRICES
and on
CREDIT TERMS

**DRYER'S
STANDARD
FURNITURE CO.**

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New Books on Aviation Now Available at the San Diego Public Library

Eddy, Myron F.—Aeronautic radio: a manual for operators, pilots, radio mechanics. 1939.

The first eleven chapters should prepare the average person to pass the theoretical part of the examination for an aviation radio operator's license.

Brimm, Daniel J. & Boggess, H. Edward—Aircraft engine maintenance. 1939.

For the beginner in the field with reference material of value to the expert also included.

Diehl, Walter Stuart—Engineering aerodynamics. rev. ed. 1939.

Essentially a new book. Concise practical information on the dynamics of aeroplane design for the advanced student or designer. Contains an excellent chapter on the new field of hydraulics in aeroplane design.

Mackenzie, L. B.—Welding encyclopedia: a practical book on metallic arc, carbon arc, oxyacetylene, electric spot, butt, flash and resistance welding, thermit welding and metal spraying. 9th ed. 1938.

Harcourt, Robert H.—Working and heat-treating of steel. 1939.

Prepared for use in technical schools and colleges. Some chapters on drawing out, bending and twisting steel, also on hammer work and tool forging.

Niles, A. S.—Airplane structures. 2 vols. 1938.

Simmons, Virgil—Air piloting. 1939.

Baugham, Harold E.—Aviation dictionary, reference guide. 1939.

Adams, D. R.—Practical aircraft stress analysis. 1939.

Day, K. S.—Instrument and radio flying. 1939.

Duncan, Richard—The aircraft flight instructor. 1939.

Note: If you do not find these books on the shelf, ask the librarian for them as many of these books are kept on the X shelf. The X shelf is maintained for books of special value to prevent them from being stolen or damaged.

When our R. Biddle's wood shop was set up temporarily out in the paved yard recently, he simply stated, "As you can well see, I have the only open shop in the plant!"

Farmer's Daughter: "Here comes them city folks from Wichita . . . Hurry up and warm the milk up. You know they want it fresh from the cow."

People who receive
moderate salaries will
find Bonham Brothers
"Economy Service"
completely satisfying.

Bonham Brothers
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LOOK ALIKE . . .

Otto Menge is too durned good a photographer. He's the only fellow who could shoot these two fellows side by each, and make the above difference. Actually when you see these *Consolidators* in action (or hear them talk) you think you're seeing (and hearing) double. It's 'Sparky' Ernest on the left and 'Red' Ernest on the right, unless this print was made with the negative reversed. They're from 'way down South, and their southern drawl just rolls out and bounces all over the floor when they talk. Both of them work in Hulls, but occasionally you find one of them (or the other one) in experimental. You guessed it all right. They're twins. Lately they been feuding with some of the boys. It seems that one of them made a bet he could turn out a particular job in a short time. It was quite an accomplishment. It was either 'Red' or 'Sparky' who made the bet. Both of 'em are plenty red headed and dress just alike. The person who made the bet with them claims that both the boys were working on the one job, and therefore the bet was no go. However, 'Sparky,' or maybe it was 'Red,' claims he was working so fast it looked like two of him. They're still feudin'.

The saying that opportunity knocks only once is wrong. It knocks twice, the second rap being its constant companion, work.

To C. E. Reynolds and Mrs. Reynolds of the Wing Department, January 3d: A boy; weight 7 pounds and 13 oz. Therefore Mr. and Mrs. Reynolds are proudly introducing young Mr. Wilford Emerson.

HULLABALOO

By Al Leonard

JOHNNY HOPMAN has entered into the select circle of black cat haters because of an unfortunate accident. While driving up Market Street some time ago, a black cat ran in front of his car. Pooh-poohing the idea of anything superstitious, Johnny drove merrily on his way. A couple of blocks farther along Johnny was startled to see a car cross from the other side of the road straight for his car. He tried to get out of the way, but it was too late. The driver of the other car was slightly inebriated. Now Johnny is a firm member of the Friday the 13th club, and as for black cats—???

Nick Karpinski, Hull dept. inspector, has slowly ripened into the No. 1 rooter for the Hull basketball team. He has even missed Bank Nite to attend games. Nick was allowed to take care of the first aid kit one night, and was so pleased that he wanted to know why the team didn't play every night, instead of only five games in a row!

Dutch Klien, who is rather economical and doesn't like to run up a large water bill by watering his lawn, prayed for a rain a few weeks ago, and really got it. The day it rained so hard Dutch came out of the plant after a hard day's work (?)

**Good Board—Packed Lunch
Comfortable Home—Transportation to Consolidated.**

REASONABLE RATES

4040 Hillcrest Drive

and tried to start his car. It wouldn't start, so while it was pouring so hard he got out and wiped off the wires. He disconnected all the wires from the distributor and forgot how to put them back again. After two hours in the drenching rain he got his car started. He says he is all thru with this liquid sunshine!

Harry MacEwan is keeping up on his current events and magazine reading in a most economical way. He now spends his evenings at the corner drug store gently perusing the latest magazines. In order not to appear too conspicuous, Harry once bought a package of gum and at another time a three-cent stamp.

The boys in the Hull dept. are sure sorry to see Gene Pasek leave for his new job in the employment office. We all know Gene will be successful at his new post and he can be sure all the boys of Hull wish him lots of luck.

You have a dollar, We have a dollar. We swap. Now you have our dollar, we have yours and we are no better off.

You have an idea. We have an idea. We swap. Now you have two ideas and we have two ideas, and that is the difference.

There is another difference: A dollar does only so much. It buys so many potatoes and no more. An "Idea" that fits your purpose may keep you in potatoes all your life, and it may incidentally build you a place to eat them in. Bill Gilchrist.

Consolidated Aircraft's Secretary, Mr. R. A. Stanberry is boasting a bit to the world these days. The reason: Master Robert Mitchell Stanberry, who weighed into this world at just 6 pounds and 13 oz., on January 11th. Congratulations.

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AIRCRAFT ADVANCED DEAD RECKONING COURSE 5 weeks \$50

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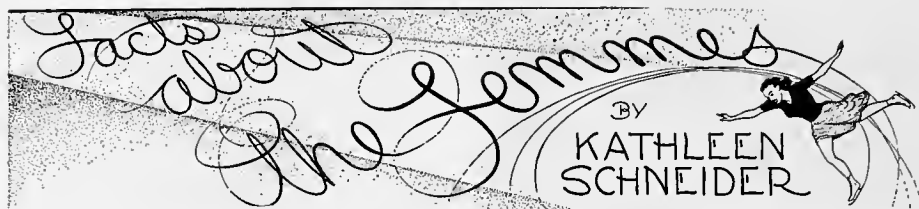
Day courses available to men on night shift.

Evening courses available to men on day shift.

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BY
KATHLEEN
SCHNEIDER

PEERING thru the desk furniture being moved from here to there, I've sighted several new faces out Planning Department way. These new faces belong to Genevieve Holm and Hazel Brink. Mr. Learman has a change of scenery, too. His new secretary answers to the name of Estelle Smith.

Oh, oh! We've just discovered Cedelia Roberts is wearing a bright new diamond on just the right finger. Looks interesting. This calls for digging up such other information as names, dates, etc. Will the young lady give us the young man's name willingly, or must we drag the guilty culprit to light ourselves?

New Arrival Department: The line

WOOD SHOP CHIPS

By J. E. Hodgson

THE Woodshop family is augmented by the arrival January 11th of Jerry Joe Apple, weight 7 pounds and 10 oz. Joe sends reports that mother and son are fine, so all is right with the world.

We are gratified to learn that J. Caireracas and F. Mitasoff are on the road to recovery, both of whom have been seriously ill.

Al Younger went east to Sheldon, Iowa, to visit his folks over the Yuletide, but was he not glad to get back to San Diego!

forms to the right to congratulate Mr. and Mrs. Richard Babb (Marjorie Snyder), who are the parents of Dixie Deane Babb, born January 7th.

On her birthday recently, Louise Girardon received an almost unanimous array of perfume, soap, and other sweet-scented articles. Louise is still trying to decide whether this was a gag or a coincidence. Or, says she, is it a *gentle* hint?

Don't let those cellophane packages crossing the street in rainy weather fool you. Upon closer observation you'll note they are some of the gals from the plant going to work wrapped in cellophane, and not fugitives from a Christmas tree.

He says he knows what it's like in Finland these days, as it was 22 below zero in Iowa when he left there.

Charlie Pogerele is making a serious study of living conditions in San Diego. He has contacted most of the older men in the shop regarding the above, and by now must have compiled a considerable amount of data on this subject. Oh, no! Charlie's not thinking of writing a book about it. He's studying the pros and cons, as he expects to get married around the end of March.

Ralph Berg and family have given up

(Continued on page 7)

ARCHBOLD EXPEDITION IN RETROSPECT

THE Christian Science Monitor published on August 10th, the following article covering the activities of Mr. Richard Archbold's expedition to Netherland New Guinea, and is hereby reproduced thru their courtesy:

Sydney, New South Wales—Discoveries claimed to equal those of Darwin and Wallace in importance have been reported by the Archbold expedition, which recently returned to New York after conducting an extensive survey of Netherland New Guinea.

In an interview here before embarking for home on the expedition's flying boat Guba, Richard Archbold, leader of the expedition and an associate of the American Museum of Natural History, described some of the important "finds", including dancing birds that build hurdles to jump through, and tree rats four feet long. Animals, birds, insects, and plants—20 per cent of them new to researchers—were found in New Guinea by the expedition, he declared.

"The results of the expedition are the greatest in my experience in various parts of the world, and perhaps will never be equalled again," Mr. Archbold said. "The use of a modern flying boat, which made 168 flights from the coast to the interior and carried 568,000 pounds of food and equipment over jungle impassable on foot, helped us a great deal.

Radio Connection Invaluable

"The erection of radio stations at our three bases permitted the flying-boat crew to keep in communication and receive the latest weather reports, but great skill was required for the heavily-laden take-offs and landings in jungle rivers and on a lake 11,000 feet above sea level. We saw territory never before seen by a white man. In one large valley—we call it the Grand Valley—we estimated the native population to be from 70,000 to 80,000. One previously unknown river, the Baliem, was a large stream.

"Our expedition has made the most important and extensive discoveries since Darwin and Wallace. We have 20 new animal species, among which is a kind of giant arboreal rat. It is a thick, squat creature, four feet long from nose to end of tail,



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BREAKFAST SERVED AT 6:15 A.M.

and a foot high. It has rows of long sharp teeth, and lives on green shoots. We also discovered a new bird which lives on flies in barren, rocky country 15,000 feet above sea level. It is blue-black, with a bright red spot on the breast and stands about nine inches high.

"We obtained many new plants and collected more than 40 rare varieties of orchids. The expedition made new geographical discoveries. It obtained movies of birds of paradise in action on their dance-grounds. The birds indulge in amazing dances on small velodromes or race-tracks, which they build out of moss. Sometimes they build hurdles and hoops, over and through which they jump."

Mr. Archbold has been flying since 1932, and the expedition now terminated was his third to New Guinea. He used a flying boat on his second expedition, but it was wrecked in a windstorm known by the natives as a "guba"; hence the name of his present craft.

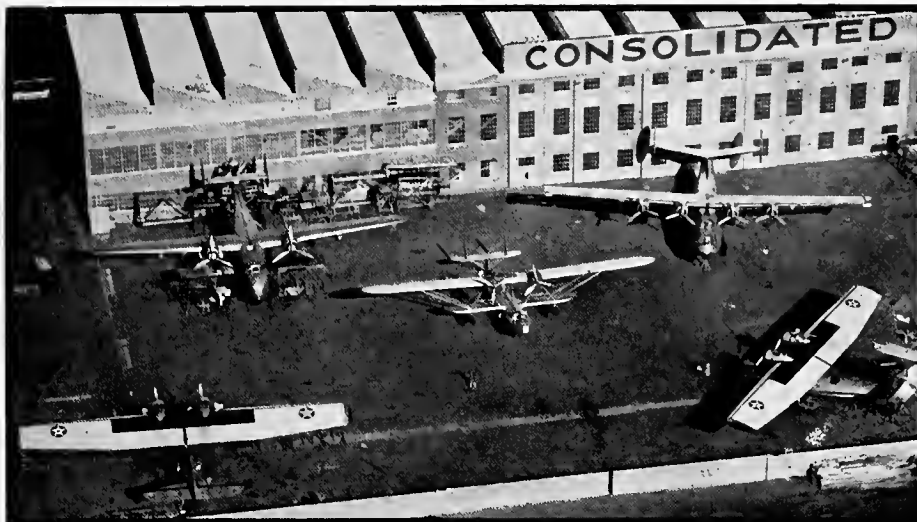
Night Flight Over Equator

Capt. Lewis Yancey, navigator of the Guba, recalled one highlight of the expedition, a night flight over the equator. "We saw some pretty heavy stuff—clouds and rain—just ahead of us," he said. "So we went on up to climb over it. Pretty soon we ran right into it—sleet and rain and snow. Remember, we were 17,500 feet up. And was it cold! We wore fur-lined flying suits, and we were still frozen. It was snowing so hard that the windshield of the cockpit was coated thick. I had an after-hatch open, and I gathered up a snow ball, just to be able to say that I had handled snow over the equator."

Describing the hazards of establishing the initial inland base in New Guinea, after landing at Hollandia, on the north coast of Netherland New Guinea, Captain Yancey said: "Our first trip revealed hundreds of native villages on the banks of a big river. There must have been 60,000 or 70,000 natives all told. They had never seen white people before. There was not one thing to show that they even knew of the existence of the outside world. We flew low over the river, and watched them run. They were scared by the Guba. Later we learned that every one of them was a head-hunter."

Mr. Archbold has spent almost all of the last year in hitherto unexplored territory in Netherland New Guinea on this elaborate and intensive research expedition, with the cooperation of the Netherland East Indies Government. The expedition cost £250,000, of which Mr. Archbold provided £100,000. He said that he had found the country so interesting that he proposed to make another visit next year, using another flying boat.

Making a psychic bid in bridge is precisely the same as ordering hash in a strange cafe.



FAMILY REUNION . . .

Recently Chief Test Pilot "Bill" Wheatley tipped us off to an odd coincidence; on a certain day it appeared that there would be some five "generations" of *Consolidated Aircraft* within the plant yard. "Bill" and Otto Menge therefore arranged to be in the air on that day and took several shots of the "family reunion." In the photo above you will notice at the upper left, the Model 31, our latest boat and the plane that boasts the two most powerful radial air-cooled engines ever to be installed in an aircraft. To the upper right is the four-engined XPB2Y-1, the plane which has hopped across the continent and back covering the entire distance over land and without benefit of gear for descent upon land. It also was recently made the first official Flagplane of the U. S. Navy, a signal distinction. In the center is one of the old timers, a P2Y, one of the type which, in a formation of six planes, made the first massed flight from San Francisco to Honolulu (2,414 miles—Jan., 1934). At the bottom, left is a PBY being fitted for special work and to the right the world's largest Amphibian, the XPBY-5A, recently flown to Washington. The PBY and the amphibian might be said to be of the same generation. The fifth is the factory's "Fleetster" from which the photos were taken, with Wheatley at the Controls and Otto Menge doing the shooting.

ANTHONY H. G. FOKKER

Anthony H. G. Fokker, pioneer airplane designer and manufacturer passed away after a month's illness on December 23 in a New York City hospital.

He took up flying in 1911 and gained world-wide attention when he designed planes during the World War for the German High Command. His designs had been previously turned down by various allied governments.

He was born in Java on his parents' coffee plantation and at an early age showed signs of mechanical ingenuity which marked his whole later life. He taught himself to fly in a monoplane of his own design and construction. He later became the first man to loop a plane in Germany.

Many *Consolidators* have worked at either his New Jersey manufacturing units or the later expanded General Aviation Corporation plant at Fairmount, West Virginia.

Later, in Holland, he maintained his factory, the Nederlandsche Vliegtuigenfabrik, N. V. He pioneered the 9,000 mile airline between Amsterdam and the Dutch East Indies. In this factory he continued to build his own designed planes and at one time he was a sales representative for *Consolidated Model 28's*.

All of us in Aviation deeply mourn this early pioneer's passing.

Larry Boeing.



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a built-in tail wind"

Ford • Mercury • Lincoln-Zephyr
Guaranteed Used Cars

UNIVERSITY MOTORS

Office J. 3141

1276 University

Home J. 9340

TOOL BITS

By Len Hulten

C. M. Speed of our tool room was married Saturday, January 13th. Congratulations. Joe Williamson went to Baltimore on vacation and brought back a new Pontiac. Plymouth saw Deters coming and stuck him for a new Plymouth.

Art Woltring has been transferred to Tool Design, from Tool Room. Al Rinker has been made a leadman.

One of the new men said to me the other day, "This job is only 1-32 off, and I have to make a new one. They sure work to a cat's whisker around here, don't they?"

WOOD SHOP

There are those who take their recreation in fishing, boating, hunting, and all sorts of indoor sports; but let's give a thought to the fellow who takes his fun two nights a week with a gun and a uniform—the National Guardsman.

In the employ of *Consair* there are approximately fifty of these men, among them are our own Bill Harwick, Barton, Kauffman and Bruce Robbins. These men not only are getting their recreation (week-end hikes, summer camps, etc.) with the fellows that they know and like, but are receiving training that may someday prove very useful. In return for this they are giving the good old U. S. A. that helping hand, their oath to make this country just a little bit stronger each day.

These boys will be among the first to jump to your protection and mine. So let's give a little hand to the men who are doing two jobs and liking it; the National Guardsmen.



GOT A MATCH?

ON Friday, December 22nd, Vice-President and Works Manager C. A. Van Dusen, received a beautiful gift, the handiwork of some of the boys in the shop, plus a goodly supply of a much needed auxiliary necessity. He received an artfully fashioned, full grown and really man-sized smoking pipe, some three feet long. The pipe was equipt with a boiler room, convenient drain outlet, Mr. Van Dusen's name in script, etc. Also there was a supply of matches . . . plenty of matches.

It seems that Van Dusen's pipe is as famous throughout the plant, and wherever he goes, as that belonging to Charles G.

Dawes. Van's pipe is of the straight, strong and out-sticking type . . . with an ungodly capacity for matches. Invariably when Van Dusen slips into high gear in a conference, or on some knotty problem, he takes a draw on his pipe and asks, "Got a match?" The pipe gets lit, the matches automatically go into his pocket, and the pipe goes out . . . almost in one single motion. This oft repeated act has in the past caused untold havoc with many of the personal match supplies throughout the plant.

To help stem the outward flow of matches via Mr. Van Dusen's consumer, the boys contributed toward the purchase of a supply estimated to be ample . . . for a while. Not a book of matches, not a box or a carton . . . but a whole case of book matches was secured and presented. In short, the tribute to the maw of Van Dusen's pipe, was an even 50,000 lights. When Mr. Van Dusen unwrapped his gift, silently inspecting all its sterling features, and had fondly fingered his new match bonanza, he remarked, thoughtfully, "Thanks, boys, this is the first pipe I've ever had that holds as much as I've often thought a pipe should hold . . . Got a match?"

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PRIVATE FLYING

... A NEW CLUB

PRIVATE flying is now booming right along with more and more enthusiasts joining in the sport and art. Out on Barnett Avenue at Speer Flying Service it was estimated that between 90 and 100 employees of *Consolidated* are taking flying lessons or are adding to their flying time. In a brief check it was found that among those from *Consolidated* who are flying from this one port, are included: Jim Fling, Chuck Lane, Ed Borgens, M. F. Blaine, Ray Bybee, Em Otle, Bill Cronk, Paul Dale, Howard Gibson, Malcom Rossoll, Jack McDonald, B. V. Milles, Don Southwick, Paul Madson, Bill Cowthray, Ed Dudrow, Bruce Craig, W. A. Walker, Earl Merlan and Wes H. Evans. Time did not permit checking thru all the names.

News comes too, of a new flying club organization who call themselves the "Southern California Flyers." The club appears to have gone over with a bang from the very start and in a surprisingly short time they had a club of twenty members. Just the week before Christmas they took delivery of a very good-looking Cub plane, all yellow, trimmed with black and sporting wheel pants. Al Griffith of Finish Dept. who was instrumental in forming the club writes as follows:

"Our first member was Bill Van Winkle, who has a service station, Tex Hills, of the D. H. dept. was next. Tex was glad for this opportunity to fly and also to get the experience that goes with the game of keeping the ship in an air worthy condition at all times. Ray Dinsen and his pal, Joe Havlik also of the D. H. dept. followed close by. All three of these boys have gone through Aero I. T. I. in Los Angeles. Fred Robertson, who is with a local electric company decided he wanted to fly and is proving it with some six hours instruction already. Tommy Saunders, of the D. B. dept., who not only is an air-minded lad, but has entertained our group with his piano playing. Pat Dowling and Bill Sutton of Production Dept., are also putting in a lot of time and doing nicely too. Isabelle McCrae, our only woman pilot at present, is a nurse in a local doctor's office. She is a sister of Don Garrett in the Wing Dept. who is a very good pilot and has some 150 hours to his credit. Joe Hollenbeck, of North Island says this is the way to fly. Ken Smith of F. A. dept., and his pal Billy Luffe, who works at a local hotel are among the solo members of our group. Ben Danforth, is a Fish and Game Warden and has made his first attempt at flying and thinks it's the best

WOOD SHOP CHIPS

(Continued from page 4)

their Gypsy life and moved from the tent into his newly completed home, out La Mesa way. I'll bet he will find it strange when he can't smell the aroma of stray skunk or hear the coyote serenade at night!

S. A. Dodd, another night man, has moved from trailer to his recently purchased home. He has so much space now he doesn't know what to do with it. I'll tell you, S. A.—just move the living-room furniture into the kitchen so that your little lady falls over you every time she moves to do her chores . . . then you'll feel quite at home again.

Harry Walter built a lovely model motor boat some time back. He has just completed a gas engine to install in the

sport in the world. Bob McGregor of Lemon Grove and Bob Sprague of D. H. dept. are doing a nice job of flying. Jim Killeany, of the Hull dept., Bob Bailly who works at a local bank, say they never realized what they have missed until now. Tommy Emerton works at the County Hospital, also a member of the National Guards says he will soon give "them there" shock cords a work out. Bill Durlinger who was our last member works in the Production dept. will be out to fly soon."

At an election of officers recently, Al Griffith (who is the organizer, club manager and instructor of this group) was elected president, Tommy Saunders, was elected vice-president. Isabelle McCrae, secretary. Bill Van Winkle, treasurer, Joe Havlik, social director.

Ray Dinsen was appointed Maintenance manager.

"Southern California Flyers" are planning soon, to take on a second ship such as a Kinner Sport wing, Fairchild 24, Waco F2, Cessna or some ship in that class. See photo No. 3, page 20.

SAY YOU SAW IT IN
THE CONSOLIDATOR

boat. The engine, a two-cylinder, two-cycle one, has just been given a preliminary test, and works fine. Harry tells me it works better as a diesel, however, for when he shot in some oil, the oil started firing in great shape and the engine ran like a clock. Maybe you've got something there, Harry. With a set-up like that all you need do, instead of draining the crankcase, is just burn up the old oil, especially these days when there is so much talk of wasting the country's resources.

The Woodshop basketball team is evidently coming to life under the management of Bob Harshaw and the captaincy of Ken Miscon. Out of seven starts they lost the first four and won the last three in a row. O K boys, go in and fight for dear old Wood Shop, but don't let it go to your heads.

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SERVICE PIN AWARDS . . .

The annual celebration and festivities for those who have earned their five, ten, and fifteen year service pins during the year just past, was held this year at the Mission Beach Ballroom, on the night of December 30th. It was also the Annual *Consolidated* Employees' Dance, with the dance following the awarding of the service pins. The evening came quite cool, and as many will recall, fog blanketed large portions of San Diego, preventing quite a number from getting to the event on time.

At 8:00 P. M. and the start of things, the ballroom's loges were filled with *Consolidators*, their wives, children and immediate family members. The ladies were all decked out beautifully, and the children displayed much eagerness for the big event. Proud they were of their Dads, and rightly so!

Award men were called to the center of the dance floor by Don Frye, where chairs had been arranged to seat the honor group. Here Major Fleet entered into a bout of joke tossing, while Mrs. Mounce, Don Frye and Ed. Gott made the final arrangements on the stage.

With everything in readiness, Major Fleet ascended the platform and prefaced the awards with a brief message for all

present. Briefly, his intimate talk was highlighted with remarks approximately as follows:

"How fortunate we are to be living in a country that is not at war . . . the air-plane will be an instrumentality of peace . . . so powerful, it will terminate wars some day . . . its mere possession in sufficient strength will serve to prevent war . . . I believe that this is what we are coming to.

"In the last 20 years we in aviation have made remarkable progress . . . planes carrying 100 passengers with ease are not fantastic . . .

". . . In consummating the recent \$20,016,699.00 contract—the largest aircraft contract ever made by the U. S. Government, it was necessary to provide additional facilities . . . We became, as a result, the first aircraft plant in the U. S. to enter into agreement with the Treasury Department, so that the necessary additional facilities could be amortized thru financial arrangement with the Treasury.

"We have in the present work on hand alone, two years of work ahead of us, and it has become necessary to farm out some of this. Brewster Aeronautical will make outer wing panels — Northrop Aircraft will construct the tail assemblies, to make room for our own work here . . . You know also that we turned out (and you all are to be congratulated for your splendid efforts), our latest big plane in just one day short of 9 months.

"Now, with at least two solid years of work ahead of us, we have security of employment for all of us who will work . . .

"It has been a pleasure—an absolute pleasure—to work with you, and it

will be a pleasure to continue our joint work. I congratulate all of you on having achieved the status this year which entitles you to your respective service pins."

Miss Jane Dunn, who has passed her 15-year service mark this year, was the first to receive her pin from the hands of Major Fleet. Major Fleet then spoke a personal word of appreciation to each of some 65 award men. Those who had earned their pins in the respective service groups of 15, 10 and 5 years were:

FIFTEEN-YEAR AWARD

| | |
|------------------|------------------|
| Edwards, H. T. | Koch, W. E. |
| Wilkinson, D. E. | Young, George H. |
| Newman, George | Perry, V. N. |
| Bourdon, L. R. | Rasp, E. P. |
| Thompson, J. C. | Carson, R. S. |
| Mulroy, J. J. | |

TEN-YEAR PINS

| | |
|---------------------|-------------------|
| Galvin, T. J. | Combe, Robert |
| Hotchkiss, Glenn | Jones, E. H. |
| Smith, Steve | Popadowski, F. J. |
| Haegele, A. W. | MacLean, George |
| Learman, F. A. | Tuevsky, N. A. |
| Phillips, C. A. | Mussen, R. L. |
| Seely, W. F. | DeMarce, D. R. |
| Mineah, Lawrence E. | Golem, H. G. |
| Penfield, John | Roeckel, E. H. |
| Raymond, Edward L. | |

FIVE-YEAR PINS

| | |
|---------------------|---------------------|
| Kucewicz, Walter J. | Jones, Daniel A. |
| Berger, C. F. | Wright, R. M. |
| Borden, J. C. | Syren, J. P. |
| Caster, F. W. | May, Stanley, Jr. |
| Miller, F. W. | Formella, S. F. |
| Kraus, H. E. | Seaderquist, Conrad |
| Harger, F. S. | D'Amico, Edward |
| Avery, S. H. | Generas, E. C. |
| Larson, J. W. | Ogden, P. V. |
| Maving, R. C. | McLaughlin, F. H. |
| Cederwall, L. O. | Cossar, J. J. |
| Reddien, C. H. | Wainwright, J. L. |
| Jones, T. C. | Liddle, W. N. |
| Wronick, W. J. | Webster, F. S. |
| Leonard, J. L. | Van Dusen, C. A. |

See photo No. 2, page 20.

Counsel (to the police witness): "But if a man is on his hands and knees in the middle of the street, that does not prove he is drunk!"

Policeman: "No, sir, it does not. But this one was trying to roll up the white line!"

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MOVING . . .

Here are some interesting photos taken by Stan Marcyan. They were taken between 12 M. and 5 A.M. while the Wood Mill building was being moved from its former location in the "L" of the Experimental building, to make room for the expansion program now getting underway. The upper left photo shows the building being headed out onto Pacific boulevard and was taken from the parking lot across the street. Super XX film was used. This exposure was F6.3 for 3 min. The white streaks across the picture were caused by autos passing.

Upper right, Plant Engineer Bill Maloney and Machine Shop Foreman Hank Golem watch the proceedings. These men were advised of the picture taking and stood still for the 25 seconds required for the exposure (F3.2). The "Ghosts" are those of George Tompkins and Bert Woodward, who moved before the time was up.

Lower left, As the building goes out the gate, Bert Woodward stands by. (F3.2 and 25 sec.)

Lower right, The Building heads north. It is destined to ride the full length of the main plant on the boulevard, go out around the buildings at their north end and down the field to the south end of the yard, the new location of the building. (F6.3, 3 min.) Note that the exposures have brought out some of the detail in the dark interior of the building. This was not visible to the naked eye from the camera position.

NIGHT MAINTENANCE

By Stan Marcyan

Elmer C. Hornan chased off to Yuma after work at 3:00 A. M. Saturday the 13th to change the name of Miss Ruth E. Rodig to Mrs. E. E. Hornan.

Every time I hear of a fellow getting married I think of the two gentlemen meeting on the street, one married, the other single; each says to the other: "Gee, you're lucky." Those were good cigars, Elmer.

Nick La Gamma says, "With this extra five cents working nights, I can afford to drive my new Packard."



FINISH DEPT. NOTE

Bert Naseef, Chief Anodizer, is building a new home. He plans to move in in about a month. He's building on the mainland for fear that a big wave might wash Mission Beach away!

THE HULL TRUTH

By "Chuck" Farrell

The Hull night basketball 1 team, composed of Bob Patter, capt.; A. Rock, center; Bodien and Havlik, forwards; Kenner and Pjerrow, guards; Zanni, Lubecki, Plone and Taylor, wound up in the lead in the first round of the shop league. Only two games were lost. One to Sheet Metal and one to Production. The boys show a lot of flash and speed and are odds-on favorites to finish the season in first place.

WHERE TO LIVE?

ASK

E. FRIEDRICK

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234 C ST.

"WE COVER THE CITY"

Ray Kendall is singing the blues to the tune of, "Give Me My Boots and Saddle." Someone broke into his garage and took a fine pair of riding boots. Ray has a burglar alarm system in operation now. Sort of like locking the barn after the horse is stolen.

Fire Chief Al Flemming cuts a heroic figure when he swings into action during practice alarms. Pity the poor blaze that has to face "Fearless Al."

More of the old timers on the Owl Shift: Bob Wilcox, Sam Jenkins, "Killer" Manning and his brother "Chet." Several new men have been added to our shift and all seem to be doing very well keeping awake so late. The first few nights were tough on them.

Frank Popp did get a new watch, but he is afraid of breaking it if he wears it, so he is still guessing time by the old turnip.



Jones: "My wife is always asking for money. It's two dollars yesterday and five dollars today and three dollars tomorrow—always money, money, money."

Sam Rich: "What does she do with it all?"

Jones: "I don't know—I've never given her any yet."

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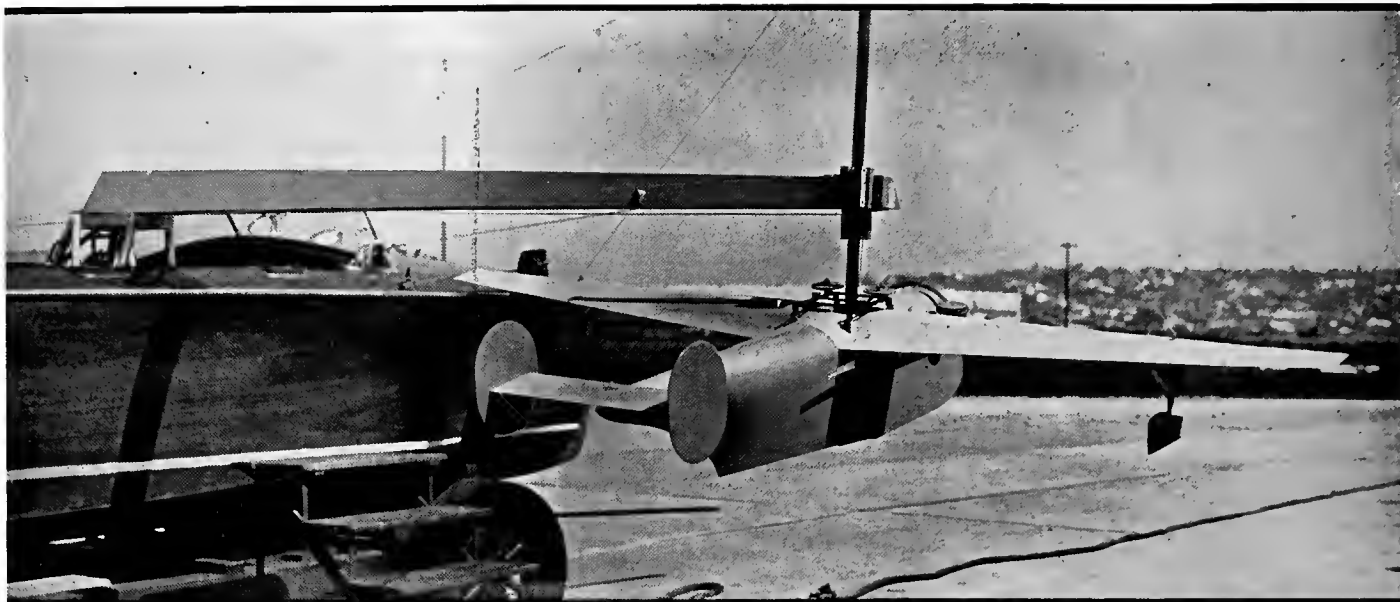


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FLYING TANK MODELS . . .

By Ernest G. Stout, Engineering Dept.

FOR many years "Consolidated" has been building tank models to determine the hydrodynamic characteristics of flying boats much in the same way that a wind tunnel model predicts the aerodynamic performance. The principal difference in the two methods of testing is the manner in which a relative velocity between the model and the testing medium is obtained.

In the wind tunnel the model is supported rigidly by the balances that record the forces, and the air is driven past the model. As the model is completely immersed in a testing medium of very low density, and extremely high velocities are desired, this becomes the most practical method. However, in tank testing the medium is water which is roughly 800 times the density of air. As the velocities required are relatively much lower it becomes more practical to keep the testing medium stationary and propel the model.

In the past, scale models of laminated mahogany were built for both the wind tunnel and the tank. As the wind tunnel model is mounted rigidly and only the characteristics due to geometric form are measured, (i.e. drag, lift, and static moments) this type of construction is suitable. However, in the tank it soon became apparent that the motions or dynamics, of the model were more important than the mere measurement of resistance due to geometric shape. This immediately brought up the necessity of having dynamic as well as geometric similarity. The

result was the flying or dynamic tank model.

The use of dynamic tank models was first investigated by the English. By an extension and refinement of the English method and equipment, "Consolidated" has developed a method whereby the hydrodynamic stability of a proposed design may be determined rapidly and accurately by use of a dynamically similar model. The dynamic model has the following characteristics in common with the full scale airplane which make attainable not only the geometric but the dynamic properties as well:

1. The hull, particularly below the chine, is reproduced accurately to scale.
2. The air structure is reproduced accurately in planform and section.
3. The total gross weight is to scale.
4. The center of gravity position is geometrically to scale.
5. The pitching moment of inertia (i.e. mass distribution) is to scale. In other words, all of the geometric and dynamic properties of the airplane that have any bearing on the hydrodynamic characteristics are reproduced to scale. The model becomes truly an exact, flying, scale duplicate of the full-sized airplane. It will not only reproduce the full scale resistance but all oscillations and motions which are essential in determining the hydrodynamic stability, or as more commonly known, porpoising characteristics.

It has been customary in the past to test a geometric reproduction of only the hull of the airplane in a towing tank and to represent the lift due to the wing by

either a hydrovane running in the water or a system of counterbalance weights. This force being applied to the center of gravity of the airplane by means of a pulley or linkage mechanism. In practically every case the weight of the model and towing gate has greatly exceeded the scale gross weight of the airplane being tested, requiring the counterweights to be much heavier than required for mere representation of lift. As the lift derived depended only upon forward velocity the effect of change in lift due to change in angle of attack of the model was neglected.

This condition of dissimilarity coupled with the absence of aerodynamic moments and damping of the wing and tail made the model unreliable as a source of information on full scale behavior. For example, it was possible to determine the best center of gravity position for minimum resistance in the water but there was no assurance that such a center of gravity was the optimum for the airplane from a stability standpoint. Very often the latter criterion is extremely critical in the full scale airplane and frequently necessitates a shift that is detrimental to the resistance or flying qualities. For this reason, when hydrodynamic stability is unknown, it is necessary to use models upon which the air structure is truly represented as well as being similar as to weight and mass distribution. By eliminating the mechanisms required to simulate lift the model can be made a self-contained unit from which the stability characteristics may be obtained in any calm body of water by merely furnishing a means of propulsion.

This is provided by the towing carriage when tested in the tank or by a speed boat in open water. The wing, tail, and other appendages may then be removed and water resistance obtained in the usual tank manner.

While it is comparatively simple to obtain the correct model weight and balance, the correct lift and mass distribution presents a more difficult problem. Due to Reynold's Number effect the geometrically reproduced wing will not give scale lift. This is allowed for by correcting the span of the flaps to make up the difference. The additional flap area will compensate for the loss due to Reynold's Number effect and bring the stalling and getaway speeds to scale without affecting the downwash over the tail surfaces. The pitching moment of inertia (Mk^2), or mass distribution, varies as the scale to the fifth power and can only be obtained by shifting mass in the model. In order to obtain the correct value it is usually necessary for at least one-half the total weight of the model to be lead ballast. The pitching moment of inertia is determined by swinging the model as a compound pendulum and timing at least fifty oscillations. With the inertia of the full scale airplane known the required period for the model may be computed. It then becomes necessary to shift the ballast and swing the model until that period is obtained. When the model is correctly balanced and ballasted it will reproduce the motions of the full-size airplane.

As half the total weight of the model is lead ballast the structure must be extremely strong and light weight. In order to meet these requirements a large amount of balsa monocoque construction is used. The wings are of full cantilever, stressed skin construction consisting of three-ply, 1/8-inch, pine ribs, mahogany leading and trailing edges, and 1/8-inch square spruce stringers. The entire structure is planked with 1/16-inch balsa which gives an extremely strong and rigid wing for approximately one-half pound per square foot of area.

The hull is built in a similar manner using three-ply pine bulkheads planked with balsa. In order to get a high gloss finish and seal the extremely porous balsa wood the entire model is covered with Japanese rice tissue paper which is attached to the planking with shellac and rubbed out smooth. The model is then sprayed with three light coats of pigmented varnish and rubbed to a high gloss. This type of construction and finish gives an extremely strong model of low weight which is impervious to water. The illustration shows

a dynamic model and towing equipment mounted on a speed boat* ready for testing.

As the value of a dynamic model depends upon its ability to reproduce the motions of the full scale airplane, it is necessary to transmit thrust to the model in such a manner that the freedom of motion is not impaired. Yaw during takeoff is of relative unimportance therefore the model is restrained about that axis. The towing gear shown in the illustration was designed to fulfill these requirements.

A square roller cage consisting of twelve ball bearings was located at the end of the towing boom. The ball bearings bore on the machined surfaces of the square towing staff and allowed freedom in rise, yet restrained the model in yaw without binding. The other end of the towing staff was pivoted in the model at the center of gravity which allowed freedom in pitch. The center of gravity fitting was mounted in the hull on a longitudinal axis which allowed freedom in roll for float investigations, otherwise it could be locked which restrained the model in roll. The center of gravity fitting allowed the staff to be pivoted at a wide range of center of gravity locations which is necessary for a thorough investigation of stability. A hoisting pulley was placed on the boom which allowed the model to be pulled out of the water at the end of the test run.

All tests are recorded by a moving picture camera mounted in the speed boat. By analyzing the film in a shadow box, a frame at a time, the trim and rise, period and amplitude of oscillation, and accelerations in pitch and rise may be determined. The horizon is used in all cases as the horizontal reference line. The shadow box is a black box with a ground glass screen at one end and a Leica projector at the other. A strip of vellum moves across the glass

*The United States Coast Guard is to be thanked for their helpful cooperation in furnishing the speed boat used in these tests.

screen upon which the necessary reference lines are traced from the projected image.

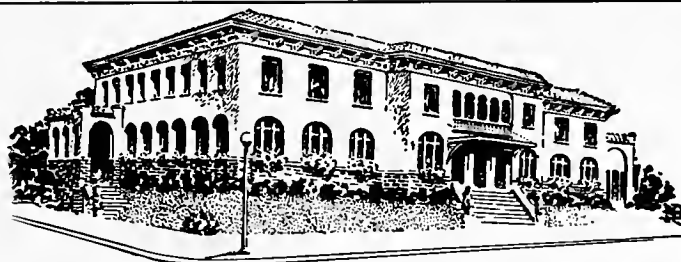
From the tests being made with flying tank models, data is obtained which is ever increasing the safety, utility and dependability of our flying boats.

GLIDER NEWS

Anticipating the heavy rains to be over in February, leaving in their wake the brisk west winds and generally unstable conditions that prevail thru the Spring, the Annual Glider Meet has been definitely set for the first week-end in March—the 2nd and 3rd. This should greatly improve chances for soaring of all types of ships, not just the high performance sailplanes (which are now burnishing the ridge alone).

The Torrey Pines Glider Port, justly famous for its excellent location and soaring possibilities has lately played host to several visiting ships from Los Angeles. From the enthusiastic owners we understand that our Los Angeles friends are also looking forward to this Glider Meet. A total of 10-12 sailplanes are expected to participate. Of these at least three will be 2-place, which will make it possible for a few of our friends to try soaring firsthand. For the entertainment of spectators there will be formation flights, precision flying, and landing contests, and a broadcast from the Club's 2-place sailplane. See photo No. 1, page 20.

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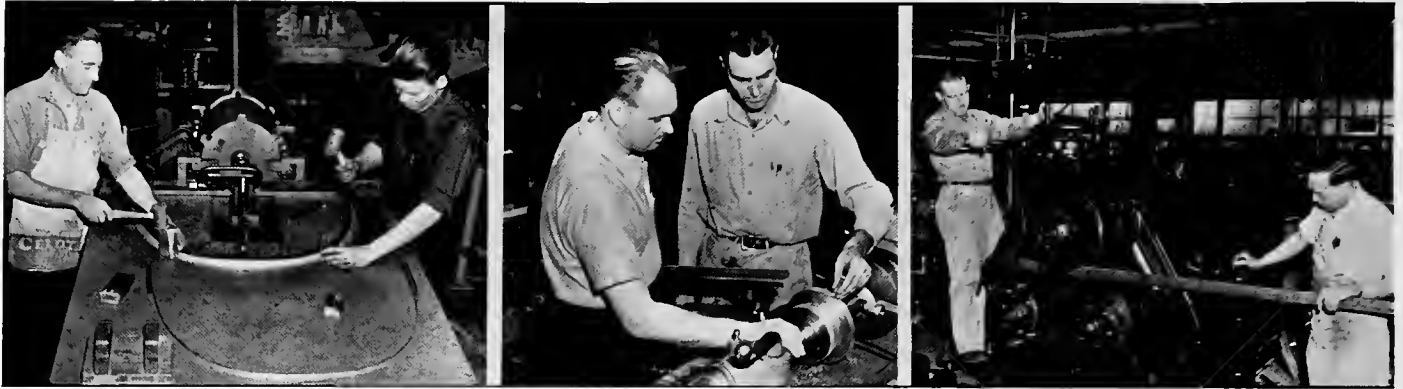
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Stretching curved sections is a difficult problem, but is easily handled on flat table top with aid of curved bar being driven against inside of formed angle by pneumatic pressure. E. W. Hall and L. E. Whitcomb perform this operation working the bottom angle leg to set it during the stretching operation. This machine is readily adjustable for change in radius or section.

Each section being made up must have its own set of rolls. Red Robbins handles these requirements and draws on his many years of experience in designing these items. He is conferring with Millard Web, Draw Bench machinist, on the finishing touches to be added to the roll you see in the lathe. The finished roll will be part of a series to produce a "Zee" section similar to that which Robbins is holding in his hand.

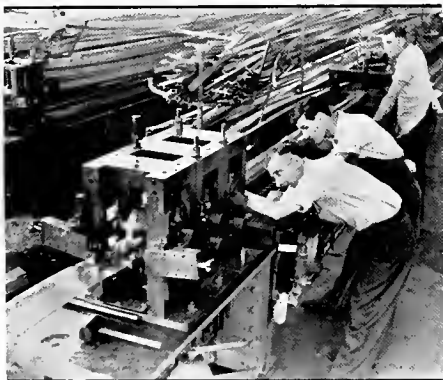
All work performed in the Draw Bench is not for direct production purposes. Many jobs are intricately formed structural iron sections which will be used as tools, machine guards, and jigs or fixture details. On this heavy roll machine large size structural sections are easily handled. Joe Friel is adjusting the top roll and W. Scott is handling the control box and feeding into the rolls a section of $\frac{1}{4}$ "x 2'x2" angle iron.

ROLLING THRU THE I

By Larry Boeing

THE person who dubbed Chris Englehart's department with the title of "Draw Bench" sure took an easy way out of explaining one of the most difficult set of operations performed in our manufacturing divisions.

It is in this department that materials



Pictured here is the large Draw Bench capable of drawing the heaviest gauges used in the plant. Chris Englehart is checking the operation and roll setting on the first piece of a run of a section of 24 ST Alclad sheet .128 inch thick. Bill Fink and Al Weigle have set up the job and will handle the production run. This draw bench can handle lengths in excess of 50'. It is powered with a 50 H.P. motor.

are recorded in thousands of feet of particular sections, instead of the usual tens or hundreds. It is truly the volume producing unit of our organization.

The large amount of material required necessitates a considerable movement of raw materials into the department, and finished sections or parts to stock, or further processing. Only thru careful advance planning and organization can delivery schedules be met. But in between these movements are sandwiched a myriad of operations the nature of which is so specialized in most cases, that it becomes necessary to construct the required processing equipment in the Draw Bench department itself.

Most of the equipment with the exception of a few large machine tools has been developed jointly by the heads of this department cooperating closely with our Tool Design and Tool Room.

Forming sheet metal by drawing it thru a series of rolls is not a new achievement by any means. Adopting this processing arrangement to form materials used in aircraft construction did however, present an entirely new set of problems.

Alclad sheet, the most generally used draw bench material, is a composite of a heat treatable aluminum alloy core covered on both sides with a thin protective coating of pure aluminum. This outside

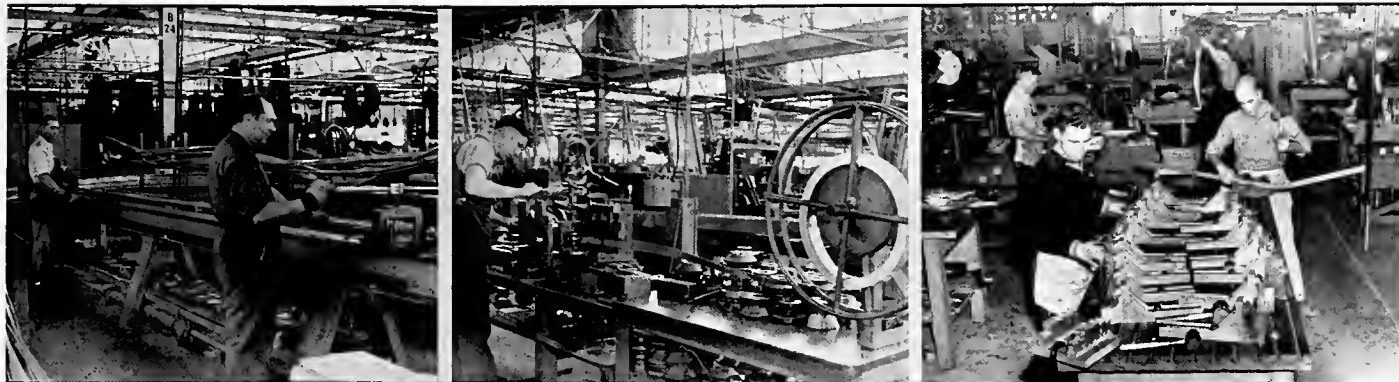
coating must not be injured in any manner that might affect its serviceability. This makes the watchword "Be careful" the paramount concern of all members of the department.

Raw material to be formed is sheared to developed widths and delivered to this department in coils. Sections with simple right angle bends to multiple curves such as heavy "hat sections" are manufactured here. Many have short return bends at the edges to increase the section's inherent strength. This complicates the rolling process considerably, but adds to the plane's strength and carrying capacity.

These completed sections must conform to strict dimensional requirements. Bend radii must be accurately maintained and finished material must not show any appreciable loss of section thickness.

All these operations are accomplished by passing the strips of metal thru an arrangement of rolls. Each set of rolls in the series causes the ribbon of metal to take a new shape and the final set brings the section to its correct form and dimensional requirements. Powerful electric motors drive the equipment.

The sections once drawn to shape are now ready for heat-treatment, straightening, pulling and are then checked for correct hardness by means of a Rockwell Hardness Tester.



Stretching of aluminum alloy hardens it and increases its tensile strength about ten percent. Here Louis Kolts and Chet Sheppard are stretching long stringer sections after heat treatment. Rack in the background contains warped section (caused by heat treatment) awaiting pulling operation. The machine is pneumatically operated.

Pictured above is Bob Gates operating one of the smaller rolling machines, several of which are in constant use during three shifts daily. Here one can readily see the coiled material, passing thru the adjustable guides and into the series of forming rolls. These small rolling machines turn out thousands of feet of light sections used as stringers and reinforcements thruout the airplane. Stock being rolled is .072" thick. Also

note various roll sets on the table. These motor driven machines are handled by remote control by operator who has operating switch close to point where he can observe work.

Much time and effort is saved with the adjustable bench pictured above. Blocks are fastened to slides in the table top itself. These blocks themselves are adjustable for height and angle. A sample is drawn from Tool Storage and the blocks are fastened down so that they form a continual set of mountings not unlike a single form block matching the contour of the sample. Drawn section stock is then hammered or rolled to its proper shape, and checked against the block setting. The table is usually set up in a manner that will permit working both right and left hands at the same time. Fred Lightner and Joe Zerr are at work on details that will eventually be part of a Hull Belt Frame former assembly.

Below—This picture shows internal view looking aft of Richard Archbold's "World Record Breaking" Guba. Formed angles which give the ship its sleek lines can be seen held together with longitudinal stringers to which the skin is riveted.

RAW BENCH

The pulling or stretching operation work hardens the material and increases its tensile strength giving added strength without additional weight.

All completed sections are marked with a roll stamp along their entire length for identification purposes. They are then ready to be cut into lengths and formed to desired shapes as required.

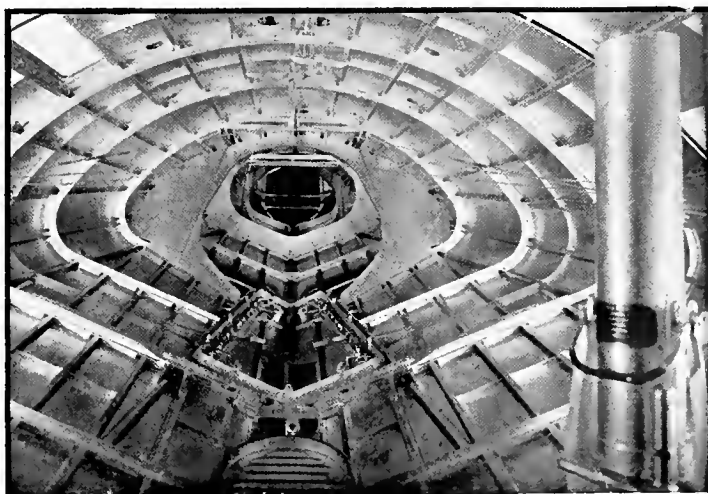
The shaping process consists of taking these sections and fitting them into form blocks which are replicas of sections of the airplane itself. Some parts can be worked easily with a block and rawhide mallet, some are passed thru rolls and others are completed only after combining the above two methods.

Rolling the completed sections to attain forms which later give the completed airplane those sleek graceful lines is a job where work stops and art begins.

Red Robbins and Chris Englehart use up plenty of energy working out these roll problems. Sometimes the removal of only a few thousandths of an inch from a face of a roll is all that is needed to clear up a difficult drawbench production problem. Not only production work problems confront the men in this department, but often they are called upon to form large structural sections which will eventually be details of large jigs or assembly fixtures. It is very interesting to watch these highly

specialized jobs being completed and much credit must be given to Chris and Red for the fine job they are turning in.

Writing about this department is a lot easier than rolling out miles of sections every day as these boys do and I want to suggest to anyone who might think his own work is difficult to watch the Draw Bench boys awhile. The ribs and formers under an airplane's skin are the cause of all its outside beauty. All the members of this department deserve a big hand for disproving the theory that beauty is only skin deep.



WILLIE WRITES OF AIRCRAFT WORK . . .

Dear Ma & Pa:

Just a few lines to let you know I'm on the new job at *Consolidated*. They wouldn't let me test hop the new plane because they couldn't spare me from the special work I'm doing here.

When I reached the land of Sunshine and Showers I met a smart boy from down West Virginia way who was every inch a slicker. As I was broke anyway, I didn't worry about taking up with strangers. Since then I've found them lots of fun even though I am still broke.

I asked this "mountain boy" what he done at the "aircraft" and he said he was a stock chaser. Well, Ma, as much as I hate to admit it, I was slightly fooled. I chased stock for you and Pa over the south forty since I don't remember when, so I thought I might as well start in on a job I had some experience on. I should have known something was wrong when the hiring man looked so funny at me when I told him I not only chased stock

but was a fair hand at "hog calling." He called me "Mortimer Snurd" and I just didn't get it.

They turned me over to a man who said this job is easy. I asked where the stock was. He said, he'd help me round it up, and sometimes I feel so sorry for that man. How he could use a horse! He told me they were going to furnish us scooters but when they tried them out the results were bad. One stock chaser made a fast turn and went over the handle bars and into a quenching tank. Somebody from the Squirrel cage said, "Too bad his aim was so poor. One tank more and he'd of made the 'Salt Bath'."

This job was easy at first but now it's getting tough. You don't chase stock, just colored tags. You see they have a different color tag for every order they have. Honest, Ma, they must be really busy. First they have Pink tags for an Army order and Gray tags for another Army order and Green tags for still another. Wow! Then they have orange tags for this kind of spare part. They use Yellow tags for an order for boats and Blue tags for spare Navy parts. But the rub came when they got new orders. Colors were getting scarce. They added white ones for commercial jobs. Then they got fancy. One morning my boss said we'll use Buff tags on the new Navy order. He said the Aqua colored ones and a delightful shade of Heliotrope were being reserved for future orders. Well Ma, that was all right, until one day I had to look for some parts in the Squirrel cage. There is something funny about that place. Even the fellows working in there act funny and look funny. They have funny blue lights beating down on them. One of the men in there keeps pixies or something, another eats raw meat. Boy is that a wild place! They keep all the men locked in a cage. Well, when I started to look for my colored tags a man with a green face laughed at me and threw me out. As I was "moving

out" I noticed a lot of new colored tags—Brown, Purple, Lemon, Orchid, and Rose. When I asked my boss what jobs they were for he just said, "that's what those — lights do to colors!"

So Ma, if I want blue I ask for purple, and if I want red I reach for brown. Ma, it's really terrible.

Well I met two boys who are night inspectors and they are in the Dog House. New Year's Eve they left the plant and on the way home the tall one said, let's get some "chuckle water," and the short one said "o. k." So the big one said, "My wife makes swell Tom and Jerry batter. She'll have some in the icebox." So they picked up their bottles of cheer and headed home. They had a few jolts and then went into the house. Softly they made for the icebox and then got a pair of cups and some hot water and carefully measured out the batter and the water, and liquor.

Well, they softly spoke of the year just finishing and their plans for the year to come and in between times mixed more batter, etc. until things were even all around.

In the morning the tall one was awakened by his wife, who was furious. "Fine man, what happened to that bowl of waffle batter I had in the ice-box?" she asked.

"Ah me!" the tall one groaned as he turned over with visions of a drop hammer coming down on his head. "Happy New Year, darling! Oh!"

Well Ma, time's a-wasting. More soon.

Love to you all,

WILLIE.



Prof. Wright: "I hate to tell you this, sir, but your son is a moron."

Father: "Wait until he gets home. I'll teach him to join one of those fraternities without my consent!"



The disturbed old lady (at the Western Union Office) finally said: "Well, if you're so clever that you can send money and flowers by wire, I cannot see why you can't telegraph this umbrella for me."



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It's Raining, It's Pouring The Old Man Is SOARING—

By Jerry Littell

THE rains have come and, with the rain the wind. So who worries about a rain cloud when it brings wind, free power for hours of sailing in the sky? Besides, the cloud itself gives lift. If it can hold tons of water up there it certainly can hold a sailplane too. By rising high enough on the deflected winds a good soarer will try to reach a cloud's field of attraction to get still more altitude, spiralling like a hawk till he reaches the cloud base. Now he is not restricted to the ridge lift any more, his highly streamlined craft will take him from the lift of one cloud to that of another. His slight loss of altitude between clouds is quickly regained under them.

The thrill of sailing lightly around in the sky, defying nature's law of gravity, not by expenditure of throbbing, roaring power, but by using his own skill and knowledge of the nature of unstable air—balancing its energy with the force of gravity—that thrill is reserved for the soaring pilot alone.

That sense of achievement is worth all the hours of work spent constructing and grooming his ship, and the waiting for wind. And if the air turns stable and lets him down, his high gliding angle gives him a wide choice of landing fields, including his own. Does he worry about a "dead stick landing" in a small field? No, he just approaches from the most convenient angle,—the dreaded down-wind turn at low altitude is familiar to him, so is the tail or side wind landing long practiced in slope-soaring—and he alights on the spot.

"—But if he had a motor he wouldn't have to come down, and he *could* go places."

And where would be that wonderful sense of achievement? Soaring is flying for sport, not for transport. *That* is primarily the purpose of the airplane. The transition from sailplane to airplane, if desired, is easy and the future transport pilot will have that fundamental understanding of his element which only comes from riding the winds.

PAINFUL COMEBACK

By Bud Sprague

THE more or less friendly rivalry between those of us who spend our spare time enjoying the pleasures of flying a power ship, and that strange group of mental cases who haul gliders all over the country in hopes that they might chance upon a stray breeze, give rise to many interesting private wars.

In contradiction to an article by Jerry Littell appearing in the December issue of the *Consolidator*, in which he told how Jim Conniry, erstwhile glider enthusiast, took a hop in my Curtiss Jr., which Jerry referred to as "nearly an aeroplane", I give you these few lines.

It seems that Jim had intended to go for a ride in one of those motorless rigs that are so nice for children and old ladies, but the wind was not right. After a quick look at the weather map and several tries of wetting his finger and holding it up without results, he found that on this day as on numerous others he wouldn't be able to glide because the necessary breeze was conspicuous by its absence.

An hour later found him at the La Mesa Airport, assuring everyone present that the only reason he would stoop low enough to take a hop in a power ship, was that this seemed to be a necessary second choice.

Anyway, he went up in the Curtiss Jr. with the result that even though he doesn't talk about it around his glider Pals, he has forsaken the glider for the power ship.

Jim immediately started taking lessons in the Curtiss and a week before Christmas, "Won his Wings."

It is quite evident that like many others who have taken the "ten-minute cure," Jim tired of waiting around on barren hilltops for Ol' Man Weather to bring him a breeze, and has come to the conclusion that it's not such a bad idea to have a wind machine right along with you.

Moral—A power ship, or to quote Jerry, "Nearly an aeroplane," is a great deal better than "nothing!"

To Mr. and Mrs. C. Slankard of the Wing Department on December 26th, a boy: Robert Calvert Slankard. Young Mr. Slankard checked into the world at just 7 pounds and 3½ oz. Congratulations. Mr. Slankard is in the Wing Department.

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DRIFTING THRU DRAFTING

By Jeff Bouley

HO Hum! What with overtime and all manner of piledriving and other construction operations going on at the plant, the fellows seem too occupied to make news this month. In fact, we have heard it breathed around that with so many post holes in the plant yard, one has to keep his wits about him all the time.

Added to the difficulty of writing this month's column is our attempt to be semi-formal by wearing a tie while writing, in indignant answer to the chiding handed us by Brad Bradshaw in his last month's comments on the Engineers' Coronado dance. From all accounts, Brad had an enjoyable time hobbing around with the engineers at the dance, but we cannot understand why he got so exclusive on the way home and insisted on taking his promenade on the ferry deck along the *outside* of the railing.

We note in the San Diego papers that the volume of mail handled last year by the local postoffice exceeded all previous

records. This news comes as no particular surprise to us when we consider that most of the reasons for it might occur right in our own plant. Henry Mandolf in his frenzied Christmas activity dashed off greeting cards right and left and even mailed one to himself. And then there was the extra truck put on to take care of the Gene Davidson mail, which was the result of a vigorous coupon-clipping orgy. Then added to this, of course, were the hundred copies of the aviation magazine with Ben Livers' picture in it. The newsstands were sold out the day after the copy appeared so that we can only conclude that they all found their way to relatives and his old college profs.

The account of one writer of the recent S.A.E. meeting in Los Angeles was quite amusing from the *Consolidated* standpoint. The meeting was described as a "gathering of serious-faced, pipe-smoking engineers, etc.," and yet our delegates Bernie Sheahan, Ben Livers and Emeric Bergere are all steadfast in the belief that the sole function of a pipe is to conduct hydraulic fluid about.

The old adage "like father, like son" was reversed recently by Bill Maloney's dad. Bill was in an accident some time ago and messed up his tibia or fibula or maybe both, and he still experiences difficulty in navigation. Last week Bill's father was trying out a demonstration model of a power-driven scooter for the new plant transportation problem. He was getting along pretty well and was just learning to do neat figure-of-eights when his mount tricked him. He has now taken over the operation of the Maloney family crutches.

Speaking of the hobbling element in our department, we don't know whether it is due to the parking problem or not, but several of the boys are really limping these days in their travels up and down stairs. Besides Dick Robbins and Gale Thompson, Med Sherwood came to work during one week with a bandaged foot allegedly in-

jured while he was playing basketball. Med was the recipient of a baby girl for a Christmas present and we really suspect that he was tired of walking the floor at night and that he cleverly devised this scheme to get caught up on his sleep. Or again, he might actually have bumped the foot during one of his nocturnal vigils and been a little sheepish about reporting the true cause of the injury. Erv Watts, the little giant of the stress group, whose kind, it is rumored, made the filming of *Gulliver's Travels* possible is also providing shelter for an infant daughter presented by Mrs. Watts during the holiday season.

What do the huntsmen and fishermen do in the off season? We have pondered over this question many times, but one recent evening we learned the answer. After a strenuous season of deep-sea fishing and bird hunting, Buck Growald and Etienne Dormoy, those famous *chasseurs* of the denizens of the sea and air, were seen in off-season action down at Tony's Place. One would fire the electric-eye gun at the travelling ducks while the other would keep score on his fingers. Quire a crowd had gathered in front of the place to peer through the windows at the men in action. But we were a bit embarrassed and we stole silently away feeling somehow that this year will be a great one for the duck.

"X" NEWS

Well, our first item today is something that is really choice. Dispatcher No. 44 got an urgent telephone call the other day. The call was for a baby scale. One never knows what the dispatching system will be called on next to produce.

It seems as if Jim Morris never runs out of "puns." One day last week Jim asked Bruce if he had heard about the empty house on the hill. Bruce, very seriously said he hadn't heard anything, and Jim, just as seriously comes out with, "Why, there's nothing in it, of course." That's o. k. Bruce, you are not the only one who has fallen for Jim's jokes.

Our bowling team, last year's champs, is going right up the ladder again. In the *Consair* League they are tied for third place — while in the Wednesday nite league they are in first place. Keep it up, boys, you're doing swell.

On January 11, 1940, Mrs. Reed, wife of Lonnie Reed, passed away. You have the sympathy of all of us, Lonnie.

A poor workman can do little with fine tools, a craftsman, wonders with poor tools.

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PLANT ENGINEER INJURED IN SPECTACULAR CRASH

There was a terrific burst of speed, a couple of bumps and then a resounding crash (according to eye witnesses). Out of the debris limped our Plant Engineer, 'Bill' Maloney, with a game leg.

It seems the physical act of transporting one's self about the factory and yard is assuming major proportions along with the expanding plant. So to cut down the 'walking time,' the idea of using small powered scooters was being tried out by 'Bill' Maloney and Jim Kelley, plant superintendent. The little busses proved fascinating runabouts. Jim Kelley managed to master the art in one lesson and maneuvered about the yard without mishap. 'Bill,' however, encountered some rough going and came in for a one point landing, injuring his leg in so doing. 'Bill' says as a result of the experience he's completely sold on the tricycle landing gear as used on the amphibian and will pay particular attention during the expansion to the smoothness that goes into the yard paving. Only temporarily slowed down, due to the use of crutches, 'Bill' will probably be 'on both feet' by the time this issue comes out.

It's a fine thing to be a gentleman, but it's an awful handicap in a good argument.

FINISH NEWS

By Al Griffith

CONGRATULATIONS go to Bill Baker on his marriage, also cooking his own breakfast.

Hubbard planted his lawn the other day now he is looking for a lawn-mower.

Bill Picken is digging up an old lawn which will soon be finished.

Have you ever noticed that engineering look on Claud Galehouse's face lately? That is from playing with his electric train. He found it under the Xmas tree.

I hear Bob Jurgenson is now running a fruit market.

The honorable Frank Finn says he was so busy that he didn't hear the whistle, and he missed seeing the army job take off.

Art Crossley is putting in a lawn at his house. Maybe you can borrow Hubbard's lawn-mower.

We are pleased to hear that Mrs. Bob Bibbs has returned from Colorado after a six weeks illness. Bob reports that she is doing fine.

Congratulations to Red Shade; the winner of a scholarship to U.S.C. through his swimming. Says he is going to be a journalist.

We sympathize with Ollie Stewart because of the recent death of his sister.

Dale had a race with another motorist; it went over with a bang, the race was a tie.

Alexandra wants to know the formula of Stewarts Sat. nite refreshments.

Walter Lawr and Roy Combs are both figuring on building new homes.

We wish to welcome back to the department Wally Miles, Ray Damon, Ray McGriffin, Vern Tyler and Carl Johnson. Wally has had an addition to his family: little 14-months-old Miss Valaree Miles. Damon was busy re-enforcing his home against the doings of three husky sons,

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who have attained the ages of 3 to 6 yrs. McGuffin got married during his leave and along with other minor details became the stepfather of three children. Tyler went to Alaska to find his pot of gold and came back after a year and a half with fond memories of mining camps, construction work, and good fishing. Carl Johnson took advantage of the times, working with a building contractor. A beautiful young girl took advantage of him and became Mrs. Johnson, and by the time this goes to press, according to the latest telegram, the stork will have taken advantage of both of them. Congratulations.

NOTE: Little Miss Judith Irene, weight 7 lbs., 12 oz., was born on Jan. 19th. Carl Johnson is now the youngest Dad in Anodic Dept.

Our red-headed Herbert Austin Maxwell Henderson just took two weeks off to go with the National Guards on its war games. Harry Coyle and Russ Haynes have switched jobs on the switchboard. Curly Thoman and Van Nyhuis take turns keeping the tools in order.

BEHIND THESE DOORS

SERVICE AND ECONOMY



SHERWIN-WILLIAMS
PAINT HEADQUARTERS

FRAZEE'S
PAINT - WALLPAPER
Broadway at Tenth

PRODUCTION MINUTES

By Bradshaw

WE were feeling mighty sorry for Bill Liddle so recently married to one of a set of beautiful twins. Seeing his bride so seldom he was having difficulty distinguishing her from the sister, but after we saw the two together we wonder why he tried. Ray Hartmayer saw his kid for the first time in so long that the youngster asked "who is that strange man mama?" Roy Coykendall is looking forward to see Monroe Ave. hard surfaced or at least the mud dried up when he gets home. Don Rasmussen still doesn't believe he can stay away from home so long and still be married. Bert Gimber, and Jake Deitzer, don't seem to mind as it gives a good excuse for Elizabeth and Virginia to live with mamma and cut expenses. But most of the fellows seem happy for more work, means more money and more girls, the latest female additions being Misses Hazel Brink, "Checker upper" and Genevieve Holm, "card replacer."

During the month—Ray Hartmayer had a birthday and either became of "teething age" or got his "uppers" and "lowers" on the wrong gums which caused him a great deal of trouble. A "Horseshoe pitching contest" was the final event of the celebration and Ray, after learning the object was to ring the stake asked, "what stake"? He must have lost the "prize" or recuperated rapidly from its effects for he was fit as a fiddle the next day. . . . Hal Leppart, one of the best bowlers in the city came through with his usual good games to keep his team near the top. . . . Glenn Hotchkiss and his Hull basketball team under the leadership of that "cagy" cage artist, Fred Grosher and sparked by the clever "sharpshooter" Tommy Johnson treated the fans to some thrilling games. . . . Amos and Andy have nothing on the Production phone system, Mr. "G" buzz me. . . . More "new deals" have

been given out in Production than President Roosevelt could produce with a stacked deck. . . . Paul Gaughen is the latest addition to the "Process line" and like "ye olde time" "Crown Prince" Russ inherits the throne as "King of Spares," and menace to the little Kingdom of Larry Boeing, still safe within his "chicken wire" fortress and giving 'em "both barrels." This will give Paul a chance to smoke up those "El Stinko," manila hemp cigars he has collected from the marriages and births during the past year. . . . John Hopman, is still trying to convince Glenn Hotchkiss that he should have an hour in order to dress properly for lunch. . . . "The trouble with this plant is there's no culture" groans John. . . . Gracie Koenig doesn't like to have her quintet of girls referred to as the "hungry five" . . . Bud Waterbury, who has the job of placing the "hired help" about the shop has ignored my suggestion that the Planning now has room for two each of blondes and brunettes. . . . Ernie Johnson's house-warming did not pan out so good for the host as the guests brought far too small quantities to stock his cabinet and "stuck" him for the round of drinks at the cafe while he was trying to "out smart" the pin ball machine. . . . The Chief worry of Falbaum, Stuck and McVickers of Engineering is that too many "Swedes" don't go to Finland to ruin the Minnesota Gophers football team. . . . Out Niagara street in Ocean Beach Ted Anderson takes up his abode in his new home, but Craig Clark still holds the edge in "voting power" of the block with the addition to the family of Clark number "three" while Ted and Kay do not even have a fence running around the house. . . . Not on top of the heap in the basketball league, but giving the teams a run for their money is the Production hoopsters, Matusek, R. Gaughen, P. Gaughen, Carter, Weish, Peters, and Phillips who would like to see a few more production fans out besides their wives and sweethearts, who have no place else to go. . . . The night team we find leading the way in their league and top favorites to win. . . . Good work fellows. . . . That gala event at Sunnyside was made possible by those "Sky hawks" Anderson, Leboffe, Good-year, McDonald and Butterfield who can make a "three point" landing with any kind of "load." The worst casualty was the loss of Harvey Muck's glasses which next to a fallen arch, ingrown toenail and bunion is the toughest luck that can befall a dispatcher. . . . But Harvey claims he had already seen all there was to see

(Continued on page 24)

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HOT SHOTS FROM WELDING

By Willie Winchell Hartman

IT seems like the romance of aviation has caught up with our Frank Hughes. He recently joined the "Phantom Pilot Club of the Air," a radio serial for boys and girls. We also understand that our Yodeler Frank Kastelic has been made sergeant in the Gene Autry boys' club.

Tommy McAleer just couldn't stand the excitement up in L. A., so he had to come back just as we expected. Funny how the oldsters are finally seeing the light.

And speaking of the boys who went back home, Pete Cinquegrani left six inches of snow in Baltimore. He says no more for him. Funny how this San Diego climate gets under a guy's skin—just can't stay away, or is it those Mission Beach Belles, Pete?

Vic (15-year) Perry couldn't make the New Year's Dance, but he did make the Rose Parade, and says he had a swell time as did Ben Kiegle, Harlan Dye and a few others. Incidentally, Vic secured quite a few very excellent snapshots of the Parade which are a credit to any photographer.

Little (Joe from Chicago) timekeeper, is now a member in good standing of the Welding Dept. black hand department. That black grease is sure tough to get off. At least Geo. Spencer thinks so now?

Roy Williams, soon a papa to be, was seen in a certain department store at the baby counter buying those square, or three-cornered pants they all wear . . . Rock-a-bye, baby . . .

Art the Bommer is contemplating a trip to Yuma for the business of getting married . . . Just so long as he only thinks about it he'll be o. k.

We all know you can't braze anything with graphite or asbestos, but we wonder if Hendricks knows it yet, because that's what he was using to braze cast iron—tch, tch, 'stough, Henry!

The George Drapers are infanticipating. George is hoping for a girl and his wife looks for a boy so George no doubt will like another boy!

Good old Gus Fougeron sure can take it. After all his tough luck and bad

breaks, Gus dropped his cigarettes in his pail of water on the same day he found his youngest had put a toy balloon in his thermos full of coffee!

A little sea gull told us that Dick Davis, that dapper Dan from down Chula Vista way, is just about ready to take the final leap into the marital war-like sea of matrimony, with the beautiful Vera Smith from Coronado. The ceremony takes place near the end of January, as Vera's birthday is in February . . . Huh, some gift to give a gal, says us.

The Welding basketball team, consisting of Harlan Dye, Roy Williams, Don Feency, Don James, Al Miley, Jules Aguire, Bert

Bailey and Cecil Flowers, wish to thank all those who shared in securing the necessary equipment, especially Leo Bourdon, who so generously donated the very necessary shorts. O. K., boys, now let's see you get in there and win!



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FROM THE ALBUM . . .

1. Left to right: Steve Kecskes, Jerry Litell and Harry Comer assembling Jerry's newest . . . "Whitcap."

2. At the celebration for the giving of the service Pin Awards: Left to right: Major Fleet, Miss Jane Dunn, Leo Bourdon, Ed Gott, Jack Thompson, George Young, Jack Mulroy, Walter Koch, H. T. Edwards and Dave Wilkinson. Photo by E. Backhaus.

3. Picture of members of "Southern California Flyers." Front row, left to right, Bob McGreagor, Al Griffith, Fred Robertson. Rear row, left to right, Pat Dowling, Rod McCrae, Joe Hollenbeck. Ray Dinsen, Tommy Saunders, Bill Sutton, Tex Hills, Joe Havlik, Isabelle McCrae, Bill Van

Winkle, Jim Killeany, Billy Luffe, Ken Smith, Bill Durlflinger.

4. These bachelors run a bachelor house called "Club Montecito." Left to right, standing: Jim Magee, Mr. Wold and Bill Wold. Mr. Wold is Bill's father, and his culinary art is rapidly adding to the waist lines of the group. Kneeling, left to right, are: Mel Harter, Frank Ranahan and Walt George.

5. On September 3rd last Mike MacNally became a married man. Here he is just outside the photographer's with the former Miss Margaret Teresa Brown, who is now Mrs. MacNally.

6. Eighteen ducks and one goose. The hunters are, G. Spaulding, Knute "Ducky" Knudson and Bob Dunn. The place of the hunt was the Salton Sea. Photos submitted by D. T. Berger of Main-

tenance who adds, "We would like very much to have you fellows over for a duck dinner sometime . . . be sure to pluck the ducks as we are allergic to duck feathers!"

7. Turned in by D. B. Suggs of Engineering, who writes, "This picture is for the benefit of Mr. Poggi of Engineering who took the day off at the opening of last quail season and came home empty handed. He would like to know just what quail look like . . . so here they are!"

8. Snapshot by Drowne of Experimental, of probably one of the oddest airplane accidents on record. Lucky Carl Thomasson lit the plane he was flying, in a group of wire carrying 12,000 volts. He climbed out and down the pole without being injured. The plane burned and here a fireman atop the pole has just finished extinguishing the fire that left the plane a mere skeleton.

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FOUNDRY

Tiny Chadwick is the little man in the foundry (only 230 lbs. of brawn); when he and three other men were lifting some large flasks Tiny lifted his end and was ready to go, while the other three men just tried to lift the other end and grunted.

Earl Merlau, No. 4117 of the Wing Dept., has just purchased an airplane. This plane (Travelair model 3000, powered by a Wright E4 190 H.P. engine) was used in the filming of the movie "Men With Wings." Earl says it is open for rent or hire.

Announcement! Mr. and Mrs. M. J. Fulkerson are the proud parents of a new baby boy born at Mercy Hospital, December 19, 1939. He weighed 6 lbs., 5-oz and was named Dennis Wm. Fulkerson.

BENCH NEWS

Bill Bellows has a cat that works in the reverse. Instead of getting rid of the mice in the house he brings them in alive and turns them free in the parlor, and it keeps Bill busy baiting the traps to recapture them. So Bill's new hobby is trapping mice. No. 2930.

An optimist is one who makes opportunities of his difficulties; a pessimist makes difficulties of his opportunities.

"Teddy Edwards must be slipping," said Teddy Brooks when he saw Teddy Edward's rubbers protruding from beneath Teddy Edward's bench.

DROP HAMMER

Mrs. Bob Sayles presented Bob of the Drop Hammer Dept. with a 6 lb., 14-oz. baby girl January 11th.

PLASTER SPLASHES

We are all looking forward to a cigar from Joe Miller. How much longer must we wait before you-all say "A do"?

No. 3713.

"A precedent embalms a principle."

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MACHINE SHOP VIEWS & NEWS

By Al Pfeiffer

THE seeming chaotic commotion in the Mach. Shop, if you must know, is the processing of a new system. Its aim is the methodical coordination of machine work with productive planning. With the combined increase in the number of men and machines, the old way gradually outgrew its short pants. Much can be said about the ready cooperation of those who have foreseen this move. For example: Didn't the amiable Fred Hudson offer to stand on his head just to get job material from stock?

May we say adieu to Art Murphy, a swell fellow and an efficient worker. Family affairs demand his moving to Los Angeles. Good luck, Art.

Notes from the quenching oil—The post of "most bashful" has been vacated by the marriage of "Dagwood" Bowling, the day tool clerk. Our guess is that leap year precipitated the jump. In his place, we offer that West Virginia Adonis, Owen Gandee. Owen can change colors faster than any chameleon. And speaking of colors that crimson countenance of Bill Wiley or "Lil Abner" as he is familiarly known, marks a tempestuous nature. High blood pressure beware!

To you who didn't know, dental reverberations put that immovable "chaw" in Walt Herchold's right jaw. Paradoxically enough the rotund figure of the jolly Jimmy Patton has been in numerous corners of the world. Give out with some of the lurid details, Jim! A man perturbed was Fred Otto when, late in January, he suddenly became aware of the necessity of licensing his two motorcycles and that Auburn speedster. According to Matt Wielopolski, our night correspondent, Jake Frichtel must have pulled a boner on the night of January 17th. Leaving work at 11:30 P. M. he pulled out of his parking space, approached the signal and was promptly served with notice of violation of Ordinance 17. Don't worry, Jake, there will be no double feature in court on the 22nd. You can still get to work in time. Disposition? \$17.00. John Howard,

debonair drill press leadman still remains the shop's most eligible bachelor. But wait till Spring rolls around and those love bugs fill the air. Handsome Jack Ware just missed an appointment to West Point on two counts (1) his wife Helen and (2) his daughter, Joyce. R. C. Miller, the smallest machinist, still hums the old song, "Little Man Who Wasn't There" with the new vocalization of "The Man Who Comes Around." We found out that Bill Love would rather be a clerk anyway. Those little red tags are a nuisance and besides you can't drill and think at the same time. Versatility is certainly personified in the form of the Machine Shop basketball team (Nite Shift). Picnicing, Jan. 21st on a fine lunch (packed by the girls of course) at Warner's Hot Springs, they then drove 10 miles up Palomar. Warm water to snow in no time—that's versatility. Things to do in idle moments—Lend a little cheer to Charlie Sellers, our millman who has been confined to a Los Angeles hospital. Stop in at the Golem household and view some excellent movie and "still" shots of the Pasadena Parade of Roses.

By the time this reaches print, we hope Bob Carson, the Tool Crib caretaker, will be back with us.

Adios—and orchids to Matt (Kelly) Wielopolski.

By the way, who is our purveyor of osculatory remembrances?

Basketball League Scores For Night Teams

Jan. 15 and 16—

| | | |
|---------------|-----------------------------|----|
| Hull | 22 vs. Production | 42 |
| Wing | 29 vs. Sheet Metal | 25 |
| Machine | 21 vs. Final Assembly | 11 |

STANDINGS

| | Won | Lost | Points |
|----------------------|-----|------|--------|
| Production | 6 | 1 | 301 |
| Hull | 5 | 2 | 203 |
| Machine | 4 | 3 | 174 |
| Sheet Metal | 4 | 3 | 155 |
| Final Assembly | 1 | 6 | 155 |
| Wing | 1 | 6 | 154 |
| W. C. Gilchrist. | | | |

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BOWLING NEWS

By H. K. Clay

THE race for the *Consair* bowling championship continues to rage at the Sunshine Alleys with unabated fury. The Production No. 1 team is leading the vanguard of keggers in the colorful contest by the narrowest of margins, having won 43 points and lost 21. The number 2 team from Production has garnered 42 points and lost 22 and the crack Engineering team has 41 points accredited to them. Experimental is in 4th place with an aggregate of 40 points while the Finish, Hull No. 1 and Purchasing teams are next on the ladder of standings with 39, 38 and 36 wins on the credit sides of their ledgers.

The Engineers league is paced by the Flap team with 36 points won out of a possible 56. The Loft No. 1 quintet is a single point behind the leaders with 35, and the Armament aggregation is in 3rd place with 32 points won and 24 lost.

Carl Heim topped the field of *Consair* keggers on Friday, January 12th by turning in a total of 543 pins for the three games. Tom Coughlin, his teammate, won the honor the following week by registering games of 202-188 and 189 for a total of 579.

The prize offered by the Worth Clothing Co. for high series above average was won by Owen Gandee of the Final Assembly quint. Owen pegged games of 144-154 and 189 for a 487 total or 115 pins above par.

Al Ballard has returned to the game again and is to be seen in action with his first love, the Sheet Metal team. In his initial series since his layoff Al turned in games of 146-233 and 160 for a 539 total. Not only was he instrumental in helping the Sheet Metal take the single point from Production No. 2 but Al tied with Gimber of the latter team for the pair of shoes offered by Kirby & Co. for high series above average. He had 107 pins toward the prize.

Gimber had games of 176-133 and 194 for a 503 total which is plenty good shooting for a 132 average kegger. Gimber and Ballard will decide between themselves as to who gets the shoes. Gimber may capitulate as he is aware of Al's having another arrival in his family and of course the baby always needs a pair of brogans.

The Purchasing team composed of Paul Hoch, Frank Field, Eddie Jones, Frank Meer and Frank Cary took the measure of all teams recently by turning in an aggregate team series of 2611. They tallied 852 in the first, 887 in the second time at bat and cantered home with an 866. In spite of their superb shooting they dropped a point to the Engineers who had 871 in their first game.

Several *Consair* keggers are unwittingly working a hardship on the pin boys at the Sunshine. Coming in late they throw three or four balls down the alleys at the expense

of the pinaroos who vigorously object to setting pins for charity. Such a practice makes it difficult on the part of the management to maintain a high standard of pin setters. They frequently give up their jobs in protest of the practice and it requires a Solomon to keep peace in their ranks.

Jim Wilkinson of the Production No. 1 team has been shifted to the number 4 position and has won his spurs in the new arrangement. Jim clicked off games of 199-170 and 164 in the match against the Tank team recently and obtained a total of 533 which contributed materially to the 3-1 victory taken by Production.

Another nice series was pegged by Ed Banks of the Finish team in the match against Hull No. 2. Ed started out with 168, burned up the alleys in the second to the tune of 212 and coasted home with a 171, making a total of 551.

McKinley Clutinger of Maintenance whose average is 137 likewise showed the veterans a thing or two about the game when he turned in a 512 series in the Match against Experimental. Mac registered games of 195-159 and 158 in getting his formidable score.

Every once in a while Ward Levere goes on a rampage and brings the Experimental team out of a slump. Two weeks ago Ward got hotter than usual and garnered games of 169-195 and 169 for a 538 total. Thru his excellent shooting Experimental took three points from Maintenance.

League Standings:

| <i>Consairs</i> | Won | Lost |
|--------------------------|-----|------|
| Production No. 1 | 43 | 21 |
| Production No. 2 | 42 | 22 |
| Engineering | 41 | 23 |
| Experimental | 40 | 24 |
| Finish | 39 | 25 |
| Hull No. 1 | 38 | 26 |
| Purchasing | 36 | 28 |
| Machine Shop | 35 | 29 |
| Maintenance | 33 | 31 |
| Hull No. 2 | 31 | 33 |
| Tank | 24 | 40 |
| Final Assembly | 18 | 48 |
| Sheet Metal | 15 | 49 |
| Raw Material | 14 | 50 |
| <i>Consair Engineers</i> | | |
| Flap | 36 | 20 |
| Loft No. 1 | 35 | 21 |
| Armament | 32 | 24 |
| Loft No. 2 | 29 | 27 |
| General | 27 | 29 |
| Hull | 27 | 29 |
| Loft No. 3 | 25 | 31 |
| Fixed Equipment | 13 | 43 |

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"S&H" STAMPS GIVEN

SPORT HIGHLIGHTS

By Matt Wielopolski

The ever increasing number of sports within our *Consolidated* walls has forced me to relinquish my monthly Machine Shop article to the new reporter, Al Pfeiffer, a grand fellow, a swell guy, and a fine sport.

At this time of the season, America plays Basketball, the only major sport which is purely American. Today, this game has been changed a great deal to eliminate possible injury to players, sectional differences, better rules, method of play, as well as satisfaction to customers. It is a well-known fact that this game was created by Dr. Jas. Naismith in 1888, at Springfield, Mass., with the aid of a soccer ball and two peach baskets. During the first few years, a mere three to four hundred engaged in basketball. Now, it is played in all countries of the world by more people (25,000,000) than in any other sport and draws more paid admissions (95,000,000 annually). Believe it or not, it outdraws football, baseball, and even golf (not fishing, tho).

Take this game at *Consolidated* for instance. Savaggi brings his basketball to the playground where he'll find Johnson, Van Dyke, Gillmore, Smith, Clark, Rock, Heckerroth, Gaughen, Liddle, Scott and Kunkle. They'll choose sides, with one of them as referee and the other as scorer and time-keeper.

At the end of the first quarter, due to Liddle's close refereeing, the score is 5-2 in one team's favor. Here we see Mrs. Wm. Liddle coming over to remind hubby of an engagement they have to keep just then. "But why in heck must it be at this moment, honey?" asks Bill L. So he leaves, and Craig Clark gives up time- and score-keeping for refereeing. The first half ends with a tie score of 13-13. Now another interruption, this time's Rock's mother calls him to go to the grocery store. "Why doesn't Sis go this time; just this once, Mom?" With these words, Rock, the Nite Hull Nucleus, leaves the game.

In the third quarter, Clark's fine teamwork (for a change) helped Johnson's high scoring. This put them ahead of Heckerroth's team, score before the fourth quarter being 27-19. But, as usual, outside (girl) friends drag Gillmore, Gaughen and Van Dyke away from the game. At the end of the game, with three men to a team, the score was 38-33 in Savaggi's favor, thanks to Scott's hot angle shots and the leaving of "them Good Guards," Gaughen and Gillmore.

After this good work-out the boys are taking a good shower, getting ready for

tonight, (this being Saturday), except Savaggi and Smith, you see two fellows can play an interesting game with a basketball, the hoop of a barrel and a wall. Now we find Savaggi leaving to help Mom dry the dishes, but Glenn Smith doesn't mind, because his wife is with the in-laws. So he has a lot of fun, dribbling, pivoting, and trying various angle shots.

TOOL DESIGN TIDBITS

By Maguire

A word to the wise is useless, so again "Tidbits" come tidbitting along.

I heard the other day that dust is mud with the juice squeezed out, according to "Guillermo" Ekdahl, which has nothing to do with Bob Hyder's report that football is a clever subterfuge for carrying on prize fights under the guise of a reputable game.

Shaw tells us that quail means to shrink—a characteristic of the bird, when ordered in a restaurant, but it will grow as large as an eagle, when being discussed after the hunt.

We think T. D. boasts the Mutt & Jeff of *Consolidated*, in the guise of Ted Hersh & Ray Peters. The latter is 6' 8" and weighs 320 lbs. Ted is almost 5' and weighs 115 pounds.

Ed Gurling tells us that a miss is as good as her smile, and that there are a lot of new smiles in Planning. According to Earl Biddle, an accident is a condition of affairs in which presence of mind is good, but absence of body is a lot better.

More new faces in the department. Someone should say welcome, so—Hello!

We enjoyed Larry Boeing's article in the last issue of the "*Consolidator*" and hope no one missed it.

Don't ask John Liefeld how hard it is to find a parking spot, nor Jouett how many miles of smiles he walks each day—Mr. Johnson wants to know "how many."

It seems everybody in the dept. was going either to L. A., or somewhere distant over the week-end when "Dave" came around with tickets to a Flying Club dance. Better luck next time, Dave, but we are quite truthful about leaving town.

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G
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PRODUCTION MINUTES

(Continued from page 18)

"Say no more Joe" for the odds and ends for the month.

Bob Mussen is again stumbling through the Planning desks after sitting on his new "specs" left in his car seat to "look" after things. Luckily he escaped less serious injury than the fellow who came to rest on George Young's teeth some time back and has been treated for "hydrophobia" ever since. But for this latter accident, I would have purchased a set of "store choppers" myself instead of the overhaul job I am having done at present. These dentists should get a cut from the "soup" manufacturers for the business they do.

So many "Bank Nights", "Pot-O-Gold", "Sweepstakes" and "Turkey Raffles," confused George Wire so that he became a "ticket kleptomaniac" and assumed that the fellow in uniform was giving him a ticket each day that would be good for a prize. But to his utter dismay George finally found out that they were "over parking" tickets and the judge hit the "jackpot" seven times.

Mrs. "Benny" Leonard, very graciously allowed "her husband" to have "the boys" over to "sit a few rounds" in her swell new home. It was tough on Ben, the perfect host, to see Dan Clemson walk off with that "first payment" he expected and "lousy" of me to write this after he

had borrowed the "extra bottle of beer" from Lou as a little bribe for a favorable report. But that beer cost me "three bucks" so I'm not very happy. Others enjoying the Leonard hospitality were Jack Mulroy, Al Ambrose, Bill Wiley, Lou Miller and Tom Butterfield, and all "ohed and ahed" at the beautiful home except Tom who never won a hand all evening and referred to it as a "dump."

That "propaganda" spread around by "Mac" McGuinness alias "McCoy" about the Tennessee football team using only seven pair of shoes, because of the four W. Va. "hillbillies" playing, was unfounded, as I saw the Rose Bowl game. Although I will admit if the field had been on a hill or at least "plowed up" with a few trees standing they would have made a better showing. I saw all the game this time, by steering clear of Ben Kiegle, Jim Wilkinson and Bob Robertson and choosing to attend it with Craig Clark, "Norm" Johnson and Don Cornell, who are at least "semi-teetotalers."



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CAN I AFFORD IT? Many of the things you buy can be classed as luxuries. They can, if necessary, be dispensed with, but like food, shelter and clothing, **insurance** is a **necessity**. You depend on insurance to safeguard your business, your dependents, your earning power, your property from financial loss. Can you afford to assume the risk of a large loss as compared to the small cost of the premium charged for your insurance? The cost of insurance is only a very small fraction of the loss that you **might** have to stand **at any time**.

CAN I BUY CHEAPER INSURANCE? Saving money by buying cheaper insurance is the most expensive "thrifty plan" ever devised. An insurance policy in a reliable, financially dependable, time-tested company is worth every cent that is paid for it. You may be able to buy cheaper insurance, but will it give you the assured protection that you need? Never was **sound, dependable** insurance **more** necessary than it is today.



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The railroad engineer on his day off went out to the golf course and practiced assiduously on his follow-through, to such good effect that next day he drove the train 400 yards past the station.

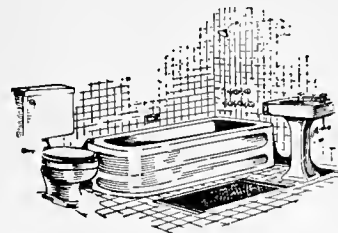
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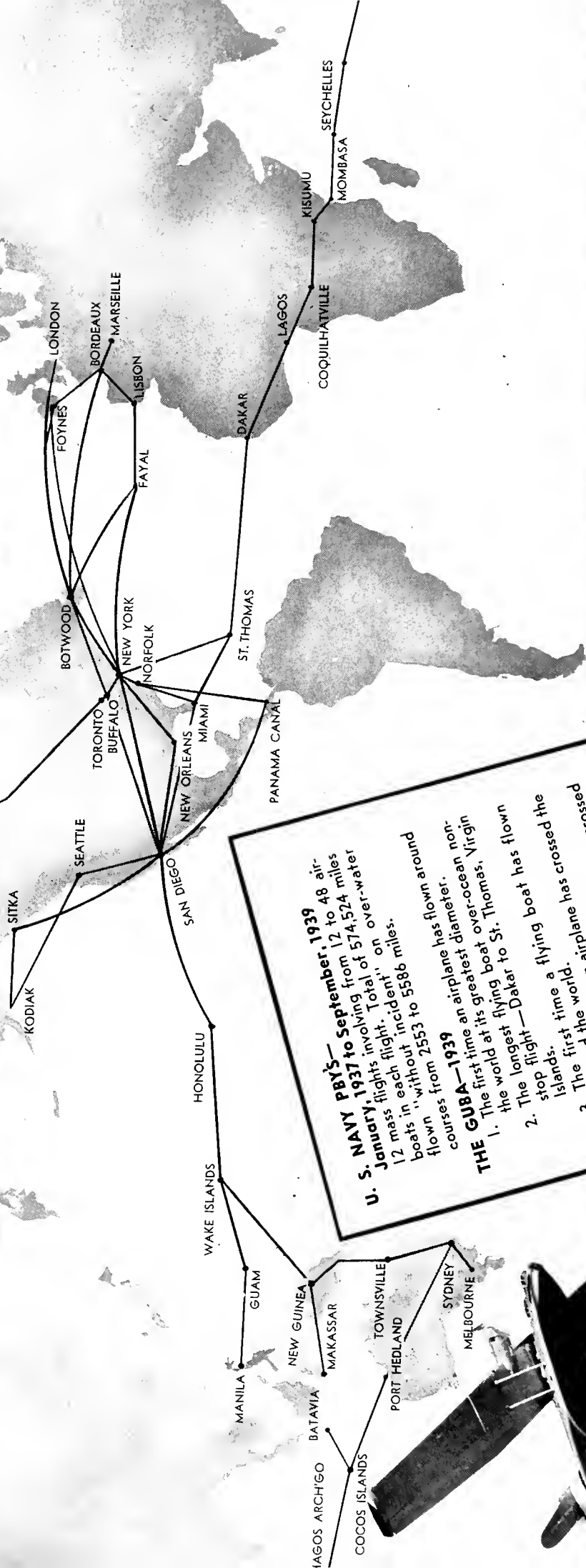
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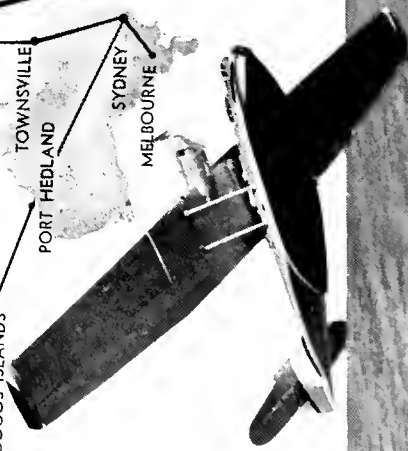
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October, 1938
First four-engine airboat to be flown in the round trip, non-stop each way across continent.

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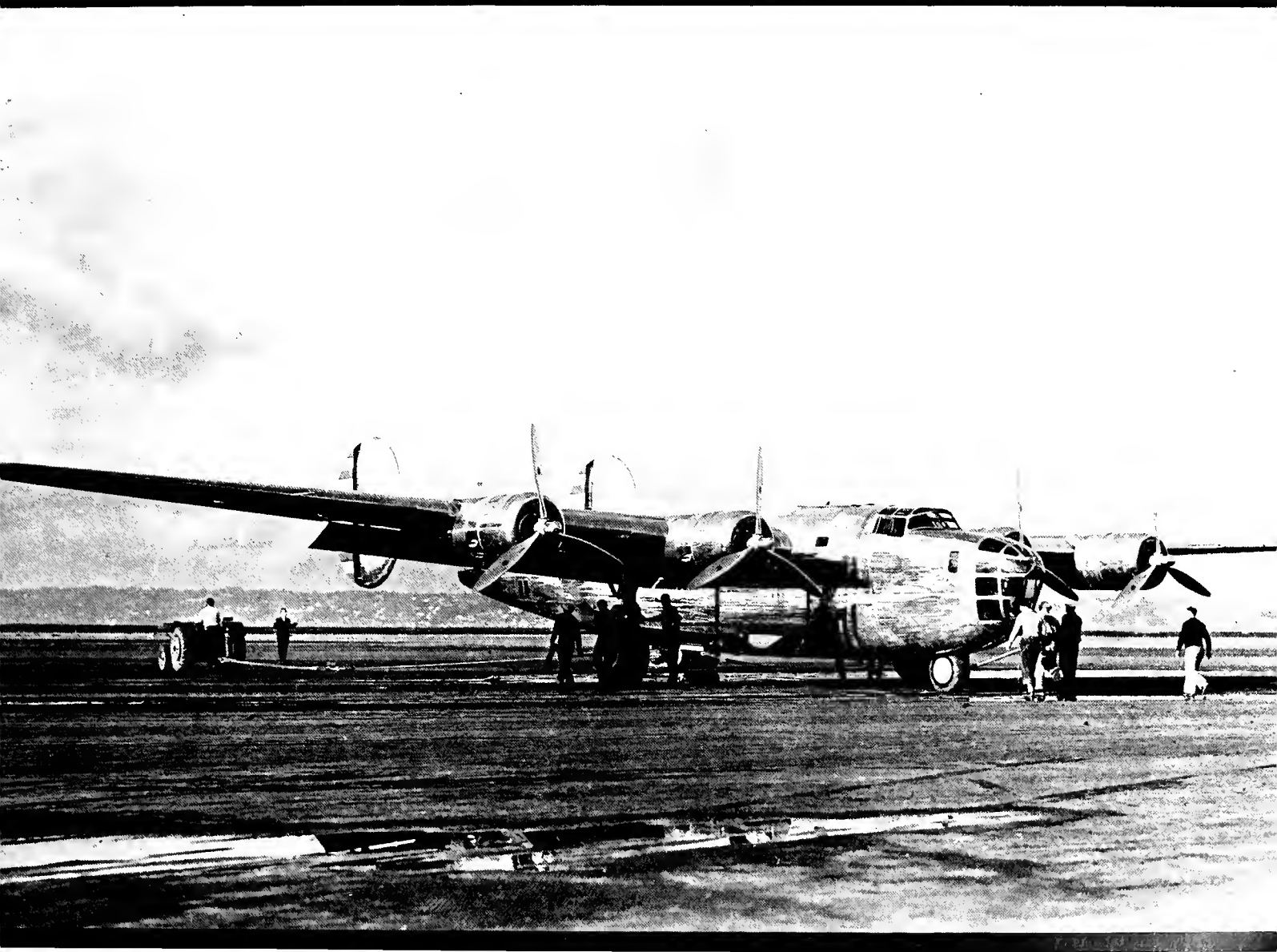
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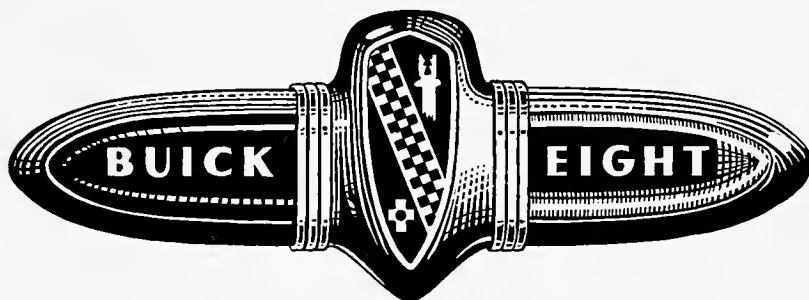
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CONSOLIDATOR

Volume 5

March, 1940

Number 3

NEW ASSOCIATION

At a meeting of sixteen employees of *Consolidated* last week, an organization was formed for the purpose of creating a fund to aid athletes who suffer injuries and loss of work while engaged in various forms of sport.

The name of "Consair Athletic Association" was adopted, and Fred Grossher elected its first president, with plans immediately getting under way for the promotion of a series of programs for raising funds.

The need for an organization of this kind has been keenly sensed in the past with hundreds of employees taking part in basketball, softball, badminton, golf, bowling, shooting and other forms of competitive sports, with no insurance against injuries that might handicap them physically and financially. The association feels that with this added protection, many more of the employees will enter into company athletics—which are vital to their health and happiness.

Every employee of the plant will be eligible for membership. A drive will begin shortly to bring as many as possible into the organization. With the eligible thousands to draw from, the association, its founders believe, should easily become one of the largest organizations in the city, able to sponsor any type of worthwhile programs. Several propositions, such as boxing, shows and dances are now being considered by the group for the near future.

Other officers who were installed at the group's initial meeting were "Brad" Bradshaw, vice-president; Dan Miller, secretary, and Lon Lyko, treasurer, with Tod Carter, "Russ" Kern, and "Army" Armstrong named as Board of Trustees.

The following representatives of the various departments attending the meeting and listed as charter members were, in addition to the above-mentioned officials, Al Pfeiffer, L. Stabeneau, Jim Wilkinson, Ray Weist, Bud Parsons, Bill Baker, Burris McDonald, Craig Clark and Bill Gilchrist.

CHANGE OF ADDRESS

According to Bill Gilchrist, welfare director, about 10% of all his calls are to wrong addresses. Employees have moved without taking the time to notify the personnel office of the change. It is vitally important to you as an individual to see to it that the personnel office knows your latest address and your new telephone number. If you are in need of help or aid, a wrong number is a great hindrance in getting to you. Further, if it so happens that you may never need aid, suppose an important message comes and you can't be reached in time, simply because you haven't kept the personnel office informed. Don't delay . . . act now for your own benefit . . . bring your address and phone number up to date!

Consolidated Strongmen

By Ray Damon

On Saturday, February 23, at Los Angeles, Walter Marcyan, of Final Assembly, and John La Lanne, of Experimental, were scheduled to lift as members of a five-man team representing Los Angeles and vicinity. (The event took place as this issue of the *Consolidator* went to press—so ask either of the boys how it came out.) Walter and John are two of the many men at *Consolidated* who are very much interested in weight-lifting. Walter is the Pacific coast 181 lb. champion.

PARACHUTES OFFERED

Due to change in type of parachutes used by our flight test crew, the company has available one form-fitting-back type parachute and two of the conventional seat type parachutes in good condition and for a very reasonable price. For further information ask Bill Wheatley, our Chief Test Pilot.

Mr. and Mrs. Don Wheat proudly announce the birth of a son, Michael Allen Wheat, who was born Feb. 16. Michael tips the scales at seven pounds, eleven and three-quarters ounces, and has an overall, tip-toe length, of nineteen and one-half inches.

TIMELY COMMENTS . . .

M. R. IRVING TAYLOR, Export Manager of the Aeronautical Chamber of Commerce, paying a visit to the *Consolidated* and San Diego aircraft plants just as this issue of the *Consolidator* was being prepared, kindly paused to point out a few of the highly interesting items about the aviation activity in this country from the angle on which he is particularly well versed and qualified to speak. Commenting upon the export phase of the industry he observed that, "Above 90% of approaching export business is military equipment. Under normal conditions, such as those existing up to three years ago, non-military craft accounted for substantially the greater portion of the export business.

"It is to be expected that for the indefinite period of this emergency, military export will comprise practically all export. However, American aircraft builders are not losing sight of the fact that they have a moral obligation to design and build improved non-military equipment which will take care of foreign airline clients and private flyers who have shown a definite preference for U. S. craft."

Another phase of the aviation activity he commented upon was the civilian training program . . . "The civilian training program is developing an 'after market' of private buyers" he observed, "and this is a very important by-product of the C.A.A. training program."

Also he stated that, "Despite the emphasis placed at this time on the military phase of aviation, the fact should not be lost sight of that at no time in the history of the industry has so much attention been given to the development of the purely civil aircraft. This least spectacular phase is truly paralleling the military, and it should be especially emphasized in the industry because it is imperative to build now the equipment that will be the principal demand when the present emergency is past."

"The day is always his who works in it with serenity and great aims."

Facts about the Femmes

BY KATHLEEN SCHNEIDER

Don't look now, but ever since Christmas Dolores Elliott of the Employment Office has been wearing a very attractive diamond on her left hand. Is he as nice as the ring, Dolores?

Here's a welcome to the new members of our Rhett Butler Fan Club (in other words, the feminine population here at the plant): Edna Willwerth, Margaret Grando, Alice Birse, Brenda Fottrell, and Gladys Crawford. We have never issued a formal "hello" to Ruth Hubbard of the Army Office—so here 'tis.

You can't blend red and maroon nohow so Grace Koenig will have to leave her red hat home when she takes the family's new maroon Oldsmobile for a spin. Bet Gracie talked Papa Koenig into getting a wine-colored car so she could buy a new outfit to match. How's about a bonnet with a blue ribbon on it for a beginning?

We're all sorry to hear of the illness of Evelyn Kells' mother and hope she is now well on the road to recovery.

Side Tracks: Bertha Kusche is learning some jitterbug steps and when she has mastered the art well enough, we'll roll back the desks and ask for a demonstration. Those new "Confucius say" jokes are giving that old gentleman such publicity as he's never had before. Definitely! Bea Jackson is a damsel in distress. For several weeks she's been searching for a lost button and if you have a similar one, beware of the Jackson gal. She's really serious about finding said button. Marcella

Holzman gave up cigarettes for Lent. (Note: Effective one day only.)

We femmes often wonder if you fellows wear such loud socks to keep your feet awake. That's the only reason we can think of.

Breathes there a man with soul so dead Who has never turned around and said, "Hmmm, not bad!"

Dad criticized the sermon. Mother thought the organist made too many mistakes. Sister didn't like the way the choir sang. But they all shut up when little brother chimed in with the remark that he thought it was a pretty good show for a nickel.

Proud Father: "My son John has got his mind made up that he will become a chauffeur when he gets a little older."

Friend: "Well, after he gets to driving a car around, I certainly wouldn't stand in his way."

And then there's the Dumb Dora who still thinks a mirage is the place where the little man who wasn't there keeps his car.

BENCH NEWS

Frank Bailey says he would like to catch a doodle bug to use in his hunt for gold.

Carl Sherrer says he will have to hurry and get married so he won't have to pay any more income tax. Don't forget to pay your tax this year, George Eggleston.

We wonder why Charlie Lay always has his fingers tied up.

Bud Edward's razor must be on a vacation—or else Bud's getting ready for a whisker contest.

Benny Keagle, assistant to Leo Bourdon, has gone in for Cub Scouting. He wasn't able to handle the Boy Scouts because they don't want to fly kites, so now he can be seen teaching the Cubs the master art of kite-flying at Brown's campus grounds on Saturday and Sunday. Benny says it has some connection with airplanes.

WING KEYHOLE

By Browne

IT'S a good thing Stephen Powell is not superstitious. On January 13th the Division of Motor Vehicles issued license plates 1Z1300 to Steve.

Tod Carter, Wing dispatcher, has been transferred to the night shift and will assume full responsibility of the Wings as far as Production department is concerned. Tod is a very capable man and we know he can handle his job well.

We wonder if Army Armstrong will muff his deer hunting trip this year as badly as he did last year's? There will be no excuse this year as deer season is eight months away and Army will have plenty of time to practice.

Summer is coming again and soon George Maclean's face will look like a red tomato. We discussed buying George some anti-sunburn lotion, but on second thought he likes fishing and outdoor sports so well it would take a small fortune to keep him supplied. We might be able to promote a little gun grease from our gun club for the cause, George.

Herb Ezard has certainly been turning out the wings. They are piling up fast in the shop. It takes lots of cooperation and planning for Herb to turn this work out. This we know is done and very capably too or things would not go so smoothly as they do. If you think it's easy, sit down sometime and figure how long it is from the time the spars are set in the jig until the completed wing goes to the Finish department.

Confucius say: Wing she grunt and wing she groan, but she gettun hull into ozone.

We wish to correct at this time the error in last month's issue regarding the Earnest twins. Red and Sparky are Wing department men. Ask Herb Ezard; he has a deuce of a time telling them apart.

The Wing Dept. feels deeply the loss of one of its employees, William "Bill" Savage. "Bill" had many friends and was well liked by everyone. He was ill only a short time before passing away.

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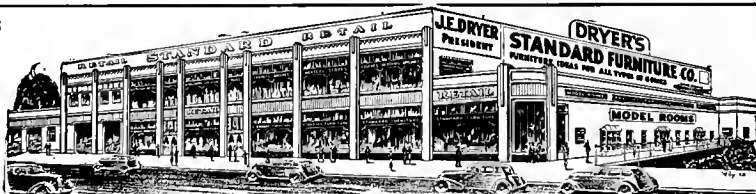
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"MODEL 32 . . ."

The first official information pertaining to our *Consolidated* Model 32 four-engined bomber (Army designation XB 24) was released by the United States Army Air Corps Feb. 12, and is printed here in full:

"The U. S. Army Air Corps' new bombardment airplane, technically known as the XB-24, recently made its initial flight at Lindbergh Field, San Diego, California. Built by the *Consolidated Aircraft Corporation*, it is a 4-motored bomber of high wing, all-metal construction. The wing is a full cantilever type of high aspect ratio with four tractor engine nacelles mounted flush to the upper surface of the center section. Fowler type flaps extend in-board of ailerons.

Power is furnished by four Pratt & Whitney 18-cylinder twin-row radial air-cooled engines rated at 1200 hp. each. The propellers are Hamilton Standard 3-bladed hydromatic constant speed types, 12 ft. in diameter.

The appropriate gross weight of the airplane is 40,000 lbs.; wing span, 110 ft.; length of fuselage, 64 ft.; and over-all height, 19 ft. Tactical requirements are for a crew of from 6 to 9 persons, depending upon the mission to be performed.

Control surfaces are fabric-covered and fully counterweighted. A full cantilever horizontal stabilizer has twin fins and rudders mounted at the tips. The all-metal stressed skin fuselage is equipped with hatches and windows in the nose, tail, turtledeck, back, and bottom. The landing gear is of tricycle type with single wheel forward. This retracts into the fuselage. The rear or main landing wheels retract into wing wells.

This airplane, from preliminary examinations, gives evidence of living up to the advancements in aerodynamic and performance characteristics predicted. These include a speed of over 300 miles per hour, a range of approximately 3,000 miles, and a bomb carrying capacity of approximately 4 tons."

If the Golden Rule were universally practiced, lawyers would starve to death.

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DRAW BENCH BENDS

By W. Fink

On behalf of the Draw Bench Department, I wish to take this opportunity to thank Larry Boeing and Mr. Menge for their swell pictures and write-up of our department in last month's *Consolidator*.

The Tool section of this department has been very noticeable lately because of the absence of William Freeman. Bill is confined to bed because of illness. We all wish him a speedy recovery and look forward to his return.

Joe Friel invites all you boys out to see his new home at 4083 Cherokee Street. Did I hear you say something about a beer party? Or were you talking to yourself, Joe?

The D. B. promises to have a swell ball club this year. We would like practice games with other shop teams.

After a couple of months of leisure and idle wanderings, Charles Gardner has returned to D. B. Since Charley returned we again hear "much ado about nothing" from his neck of the woods. I wonder where he picked up those additional words of profanity which he has added to his already complete collection?

Both Ryland Groves and Steve Stevenson have had disastrous encounters with circular saws. We hope that their injuries heal rapidly, for there is work to be done.

News Flash: The Postmaster announced a sudden increase in postal receipts. Could it be because Frank "Confucius Says" Webb has a new lady friend in Frisco? Could be!

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ARCHERY CLUB

Many requests have been made to organize an archery club at *Consolidated*. With renewed interest in this fascinating sport, the "Oldtimers" will have a meet Saturday morning, March 9, at Balboa Park, Sixth Avenue and Laurel, to consider the feasibility of forming a club.

Anyone who would like to learn the art or who already has the ability to hit the target once in a while is invited to make an appearance.

Our own Jess Schriener, well-known archer of San Diego, has promised to be with us as instructor.

Equipment will be available for everyone at this first meet, so come and give archery a try as a hobby.

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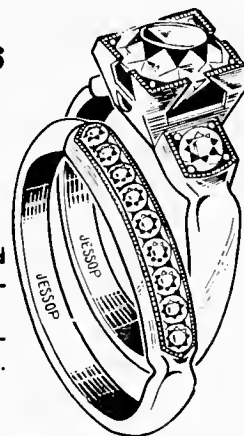
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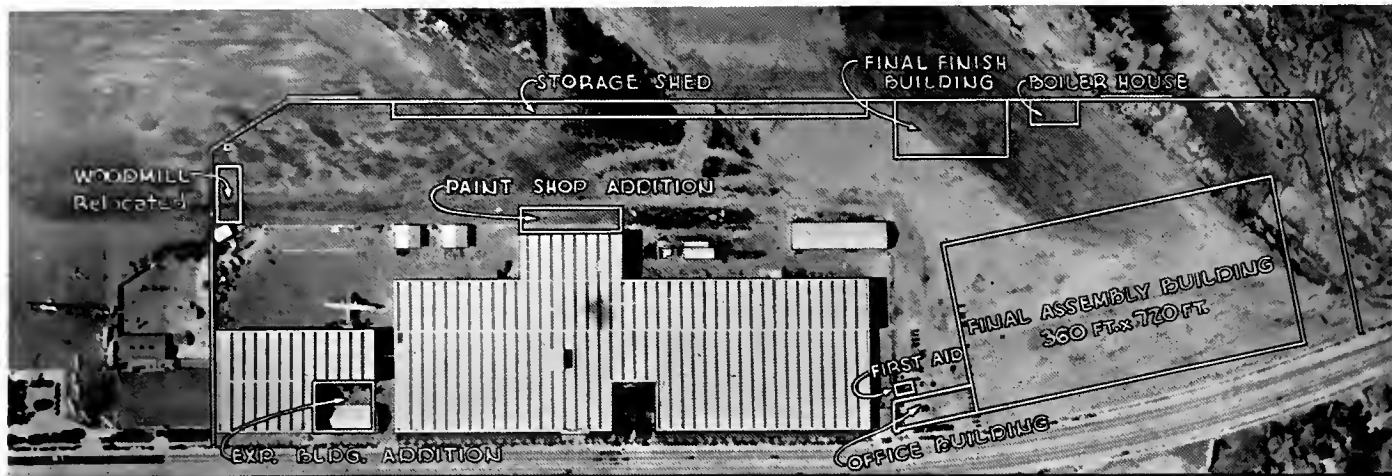
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GROWING PAINS

By Wm. A. Maloney, Plant Engineer

The photograph printed with this article gives a graphic idea of the extent of Consolidated's plant when the additions now under way are completed.

All of the proposed buildings illustrated with the exception of the Paint Shop Addition have been contracted for and work is proceeding as rapidly as possible to complete them. To expedite the completion of the program contracts for the structural steel were placed on a tonnage price basis, during the month of December. On December 20th, the contract was placed for steel pile foundations for the addition to the Experimental Building, the Final Assembly Building and the Final Finish Building. The piles for the Final Finish Building have already been driven, the concrete pile caps and footing ties have been poured and the erection of structural

steel for this building will start about February 27th.

The Wood Mill, which was formerly located on the site to be occupied by the Experimental Building Addition, has already been moved to its new location, has been increased to 120 feet in length and will be reoccupied and in operation on Monday, February 26th. Temporarily, pending the moving and enlarging operations, the Wood Mill machinery has been housed in a tent structure adjacent to the southwest corner of the Experimental Building.

Pile driving for the Final Assembly Building, the Paint Shop and the Final Finish Building will be started on Monday, February 19th, and will be completed in about fifteen days after that date. It was necessary to delay this work for a period of two weeks as the test borings indicated that the soil conditions were entirely different from those at the site of

the Experimental Building where all our previous pile-driving data had been obtained. This necessitated the driving of two test piles and testing them under load conditions to determine the exact number and lengths of piles required.

On Tuesday, February 13th, the bids were opened on the General Contract covering such items as concrete work, sheet metal work, carpenter work, interior finish, etc., and the contract for this work aggregating \$209,000 was awarded to B. O. Larson of this city.

Prices are now being received on steel sash and glass, and this contract, which will be somewhere in the neighborhood of \$55,000, will be placed before this article is printed.

The electrical plans and specifications are now in the hands of the bidders and bids will be received on February 27th and the contract placed immediately. Plumbing and heating plans and specifications will be released to the bidders on or before Wednesday, February 21, and bids will be called for on Tuesday, March 5th.

On Tuesday, February 20th, the plans and specifications for monorail cranes and other special handling equipment will be put out for bids and we hope to place the order for this equipment on or before March 1st. Shortly after calling for bids on the special handling equipment, tenders will be asked for stockroom bins and allied equipment and the necessary elevator equipment to serve them.

The entire project is planned for com-



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| MONTH | January | February | March | April | May | June | July | August |
| WEEK ENDING | 6 13 20 27 | 3 10 17 24 | 7 14 21 28 | 4 11 18 25 | 1 8 15 22 29 | 5 12 19 26 | 2 9 16 23 30 | 6 13 20 27 |
| 1 Piles | | | | | | | | |
| 2 Steel | | | | | | | | |
| 3 General Contract | | | | | | | | |
| 4 Conc. Pile Caps & Figs. | | | | | | | | |
| 5 Corr. Iron Roof & Sdg. | | | | | | | | |
| 6 Lath & Plaster | | | | | | | | |
| 7 Steel Sash & Glazing | | | | | | | | |
| 8 Concrete Floors | | | | | | | | |
| 9 Steel Doors | | | | | | | | |
| 10 Plumbing & Drain | | | | | | | | |
| 11 Electrical Work | | | | | | | | |
| 12 Heating | | | | | | | | |
| 13 Painting | | | | | | | | |
| 14 Finish Hardware | | | | | | | | |
| 15 Craneswags | | | | | | | | |

pletion on or before July 15th. The Experimental Building Addition is expected to be ready for occupancy by May 11th. This will be the first building completed and the last building to be finished, the new Final Assembly Building, is expected to be ready for occupancy on July 13th. The tentative completion schedule for the latter building is published with this article.

As bids on the various parts of the work are received and contracts awarded, it will be possible to coordinate the work of the various contractors toward the end of shortening these completion schedules wherever possible and every effort will be made to advance the dates of occupancy.

Some idea of the magnitude of this expansion can be gained from the tabulation given below:

FLOOR AREAS OF EXPANSION PROGRAM

EXPERIMENTAL BUILDING

| | Sq. Ft. | Sq. Ft. |
|-------------------|---------|---------|
| Ground Floor | 12,500 | |
| 1st Mezzanine | 12,500 | |
| 2nd Mezzanine | 12,500 | |
| Vault Inter-Floor | 500 | |
| Total | | 38,000 |



FINAL ASSEMBLY BUILDING

| | |
|------------------|---------|
| Ground Floor | 259,200 |
| Finished Parts, | |
| 1st Mezzanine | 7,200 |
| Finished Parts, | |
| 2nd Mezzanine | 7,200 |
| Bonded Stockroom | |
| Mezzanine | 8,000 |
| Total | 281,600 |
| OFFICE BUILDING | 10,120 |

FINAL FINISH BUILDING

| | |
|--------------|--------|
| Ground Floor | 28,800 |
| Fan Rooms | 1,948 |
| Total | 30,748 |

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ADDITION TO PAINT SHOP

| | |
|--------------|--------|
| Ground Floor | 10,000 |
| Fan Room | 944 |

| | |
|-----------------------------|--------|
| Total | 10,944 |
| BOILER HOUSE | 5,000 |
| STORAGE SHED | 30,000 |
| MEZZANINE IN FINAL ASSEMBLY | 6,875 |
| ADDITION TO COVER | |
| DEPARTMENT MEZZANINE | 2,770 |
| HULL AND WING | |
| DEPARTMENT MEZZANINE | 3,750 |

Total 419,807

Up to the present time, while considerable work of a concealed nature has been done in connection with the building program, it has not had any appreciable effect upon production operations throughout the plant but within the next 60 days as various units are completed and operations are transferred from their present locations to their new home and arrangement for the new facilities are started, we will again experience the growing pains that we suffered so violently from in 1936 when we constructed the additions necessary to carry through the completion of the PBY-2-3 and 4 contracts. Careful coordination and cooperation between the production, construction and maintenance forces will be the watchword if confusion and delays are to be avoided.



What Happened?

(See page 25!)

HOT SHOTS FROM WELDING

By Willie "Winchell" Hartman

ONE of the newer hands asked Brownie why we had to use heat in welding. Wanted to know why they couldn't use a metal glue of some sort. Another "youngster" wanted to know where all the saw was coming from on the band saw. But the all-star was the one who was sent to the tool crib to get a letter "B" drill, and asked "what size B drill shall I get?" Out of the mouths of babes . . .

One day not so long ago there arose from the vicinity of the electric welding booth a terrific odor. Now this particular odor wasn't an obnoxious affair, but rather it left one with a dull sense of nothingness, if you get what we mean. Several of

our better-known sleuths tracked said smell to its lair and finally discovered it emanated from, of all things, Red Feeny's shirt where lo and behold some fancy frail had literally dumped a whole bottle of essence of lilac toilet water. Now then, what we want to know is why, where, when and what for—oh the shame of it all, what with Red being such a big six-foot husky, and blushes quite easily like a new bride. Well, we have our doubts, but we do know, don't we Bert?

Lo and behold, us guys in the Welding department are in for a supply of cigars, what with all these marriages, and new *Consolidators* being born. First there's George Draper, whose wife gave him a 6½ lb. baby girl; Roy Williams fell heir to an 8 lb. boy, both as Mercy Hospital, and mothers and babies are doing very nicely. Then there's Carl Moore and Dick Davis, newly-weds, and a couple more on the Q.T. which we were asked not to mention. O.K. by us, but don't forget them smokes, youse guys.

Homer "Long-Eared" Higbee lost out on some of the most important news in the department and now he can't live it down. Well, Tommy McAller has prom-

ised to keep Homer posted so it will all come out in the wash.

Ray Wade was politely asked to show his driver's license one night, at a certain beer-hall. Seems like Ray doesn't show his age, and him the father of a three-year-old. My, oh, my it's nice to keep your youth, but gosh when it keeps a guy from getting a glass of beer, well—that's too much.

We always knew that Clyde Walker looked like something else, but Miley reports his girl friend mistook Clyde for a horse at Caliente. Seems like Miley was telling his girl friend about Walker, and she said "Oh, yes—I put two dollars on that Walker, and he was just that—he's a walker."

Did you ever know a handsomer bunch of boys than our clerical staff. What with James graduated to the bouncing bunion derby, "dispatching," we have now—Wilson, Pierson, Stone, and "little man" Thompson, all nice girls—whoops, we mean boys. And they sure turn out a mean batch of clerking.

Red Feeny has finally got himself married or at least he's taken on the duties of a wife. He and two other boys have taken an apartment, with "Red" doing the cooking, washing and other household duties. Isn't that cute? Well, Red has to pass up ball practice to get home to cook the supper. Well, one excuse is good as another.

"Windy" Rohr spent several months building a rubber band model airplane, only to have a bad crack-up on the first flight—tch, tch—tough luck, Windy. Better stick to welded joints, they last much longer.

Bert Bailey recently moved to Pacific Beach where—so he says—the street cars kept him awake the first few nights. What Bert didn't know is that the street cars quit running out there a long time ago. He finally realized that it was the mighty Pacific's roar. Ho, hum, some guys is dumb.

We're going to have two teams in the softball league this year, so watch our smoke. Manager Wilson promised us he would have a champion team out to play every game, with over 22 men available at all times.

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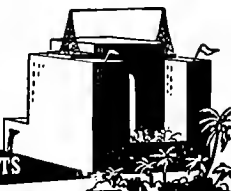
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SPORTS LINE-UP

With interest in company athletics increasing daily, and new departmental teams constantly forming throughout the plant, the need has arisen for some kind of a classified "directory" to aid those interested in contacting the right people in connection with their sport. This information is given below, where you will find the names of various team captains, managers and organizers listed, together with their departments.

BASKETBALL

Team captains: Tank, Jim Safteg; Center Section, Savin; Lofting, Craig; Welding, G. Harlan Dye; Hull, T. Johnson; Woodshop, K. Mixon; Final Assembly, H. Moy; Wing, Wilber Gish; Purchasing, Bob Passenheim; Maintenance, Pete Grijalva; Engineers, Sherwood; and Production, Russ Gaughen. Contact one of these men if you are interested in basketball.

ENGINEERS' BOWLING LEAGUE

Loft 1, T. J. Coughlin; Loft 2, I. Craig; Loft 3, C. Heim; Flap, Fowler; Hull, C. McCable; Armament, G. Clayton; General, A. Abels; Equipment, P. Carlson.

ENGINEERS' GOLF TOURNAMENT

Those interested contact T. J. Coughlin.

CONSOLIDATED BOWLING LEAGUE

Team captains: Sheet Metal, W. Leeser; Engineering, Coughlin; Hull 1, Brooks; Hull 2, Clark; Tank, Dake; Final Assembly, Kline; Experimental, Peterhanse; Purchasing, F. Meer; Maintenance, Erickson; Machine Shop, Miller; Production 1, Muck; Production 2, Coykendall; Finishing, E. Banks; Raw Material, Marks.

Under the present schedule, these teams meet every Friday night at Sunshine Bowling alleys.

ROD AND REEL CLUB

The Rod and Reel club, organized by members of Hull, has been extended to men in all departments. Call Hotchkiss for further information.

GUN CLUB

Call Howard Golem.

SWIMMING

Notices have been posted for the formation of a swimming meet, to be sponsored by the Pacific Beach Chamber of Commerce. See Bob Harshaw or John

Woodhead, Sr., in Wood Shop, for further information.

BADMINTON

Now playing each Friday from 6 to 10 p.m. in south end of Municipal gym. See bulletin boards for announcement of tournament, which begins March 1. The committee in charge includes: Terry, Loft; Billings, Engineering; James, Welding; Henninger, Accounting; Lockwood, Production; and Gilchrist, Employment.

TENNIS

A tournament is now in play, weather permitting. See Gilchrist, Employment.

SOFTBALL

About 20 or 30 teams in both day and night crews will be formed soon. See W. C. Gilchrist, Employment.

OTHER ACTIVITIES

Various other activities are in process of organization, or under way, but cannot be strictly classified as athletics. They include:

BOY SCOUT TROOP

Men of experience who are willing to devote some time toward organizing a troop to be called "Consolidators" are requested to contact Gilchrist in Employment about this project.

Bowlers Attention

4th and Cedar Recreation

(Formerly Elks Club Alleys)

announce the opening of four new
alleys, bringing the total to
TEN PINE-CENTER ALLEYS
now available

PLASTER SPLASHES

By Boyle

We are glad to welcome two new helpers, D. Klinger and D. Robinson. It won't be long before they are splashing plaster as Johnny Debs does (all over the place).

J. Debs is going to pin the Dutchman's ears back if he doesn't stop feeding him clay wrapped up like caramel candy. (Oh, boy—did he bite!)

Something seems to be missing. We can hear the bang of the hammers, the whirl of die-finishing motors, but not the rattle of the iron riveters and the solos of Alphio. (It's peaceful now.)



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The MASTER RADIO COURSE preparing you for commercial radio operator's license, telegraph or telephone; fitting you for ship, share, aircraft, airway, amateur or broadcast station operation, installation and servicing.
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AIRCRAFT CELESTIAL NAVIGATION COURSE

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MARINE NAVIGATION, Complete 2 months \$100

Day courses available to men an night shift.

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Call for additional information

Radio and Navigation Books, Maps and Charts, Instruments

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Lindbergh Field Jackson 7400

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As low as **\$125** down
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New Pontiac "Torpedo"

*INVESTIGATE This New
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Pontiac "Torpedo" 6

PRICE COMPARISON

WITH

CHEVROLET, FORD, PLYMOUTH

Pontiac Torpedo Six and Chevrolet

| | Torpedo 6 | Chevrolet Special DeLuxe | Difference |
|------------|-----------|--------------------------|------------|
| Sedan..... | \$1050 | \$996 | \$54 |
| Tudor..... | \$1004 | \$955 | \$49 |
| Coupe..... | \$ 957 | \$914 | \$43 |

Pontiac Torpedo Six and Ford

| | Torpedo 6 | Ford De Luxe | Difference |
|------------|-----------|--------------|------------|
| Sedan..... | \$1050 | \$962 | \$88 |
| Tudor..... | \$1004 | \$916 | \$88 |
| Coupe..... | \$ 957 | \$895 | \$62 |

Pontiac Torpedo Six and Plymouth

| | Torpedo 6 | Plymouth De Luxe | Difference |
|------------|-----------|------------------|------------|
| Sedan..... | \$1050 | \$999 | \$51 |
| Tudor..... | \$1004 | \$969 | \$35 |
| Coupe..... | \$ 957 | \$919 | \$38 |

When you take into consideration the increased re-sale value of a Pontiac car over the three lowest priced cars

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Administration Building
Lindbergh Field

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"The Home of Aviation"

BREAKFAST SERVED AT 6:15 A.M.

GLIDER MEET

By Jerry Litell

Saturday and Sunday, March 2nd and 3rd, will witness the largest gathering of sailplanes on the West Coast. The place is Torrey Pines glider port, between the cliffs north of La Jolla and Highway 101.

For two days there will be uninterrupted activities of gliding and soaring, and this will afford many who still think of a glider as a mass of struts and wires an opportunity to see some really beautiful aircraft performing. Besides 6 planes, of which 3 are new from San Diego, there will be about 10 ships from Los Angeles, among them the Bowlus Super-Albatross which is radically new in design and yet about the ultimate of streamlined beauty.

Major Fleet has demonstrated his keen interest in this fascinating sport by donating the three first prizes.

There is ample space for parking, and refreshments will be available, so come up and look around.

MODEL AIRPLANE CLUB

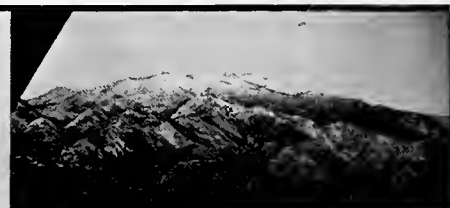
Harold Strawn will give information on this club.

BEHIND THESE DOORS SERVICE AND ECONOMY



SHERWIN-WILLIAMS PAINT HEADQUARTERS

FRAZEE'S
PAINT - WALLPAPER
Broadway at Tenth



Top left: Five-place Waco used on the trip. Upper right: San Geronio covered with snow. Elevation 11,484 ft. Lower left: Palm Springs as seen from

the air. Lower right: Al Higgins, pilot; Andy Clemmens, Art Lawson, Joe Williamson and Carl Heim.

BY PLANE TO PALM SPRINGS

By Joe Williamson

Last month a group of *Consolidators* went to Palm Springs by plane. They were: Carl Heim and Andy Clemmens, Loft; Art Lawson, Wing; Al Higgins, Tool Room. Taking off at 8:30 on a clear Sunday morning, we left San Diego rapidly behind and began a long climb, reaching an elevation of 9500 feet. This elevation was necessary in order to safely negotiate the pass south of San Jacinto peak (elevation 10,805).

The scenery was beautiful, and the snow-covered mountains were a sight not soon to be forgotten. Our course took us over the Palomar observatory, and it looked like some child's toy in a Christmas garden.

We glided into a perfect three-pointer at the airport in Palm Springs, and, after shedding our coats and jackets, walked the short distance into town. There we hired motor glides and toured the town in grand style.

SAY YOU SAW IT IN
THE CONSOLIDATOR

We had quite a bit of trouble with Carl, as he couldn't get over the number of pretty girls to be seen. In fact, it was his idea to hire the motor glides because he could see more girls in less time. Between speeding, and turning his head at odd moments, he really created quite a traffic hazard. After a leisurely lunch we returned to the airport.

On taking off we headed due north up the valley between San Jacinto and San Geronio, turning off southwest at the head of the valley to make a bee-line for San Diego.

It was a wonderful trip, and a good time was had by all. More trips are planned in the near future, and anyone interested can get in touch with Al Higgins.

TOOL ROOM GOSSIP

Re Soccer

Do you know that the father of "Doug" Buchanan in the Tool Room was one of the finest fullbacks that Soccer has had in the last 30 years?

Migrating from Rothesay, Scotland, to Los Angeles he played for Los Angeles Athletic Club and was their real standby until a broken ankle put him out of active play.

Ask Doug about him.

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GOLDFINCH

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THINGS THAT COME OUT AT NIGHT

By Craig

THE Tail gang had a party the other night. It was directed and presided over by "Pancho" Petit. After work the boys, 15 strong, went to the Loma Inn, where they feasted on Spaghetti and drank wine. During the dinner the nickelodeon played "South of the Border" so much they got into the spirit of the thing and decided to go to Tijuana for a few souvenirs. Everyone had a swell time, and if they all saw double it was just the Ernest twins.

"Casey" Jones, of paint shop, is learning how to smoke and Merle Sage is looking for the guy that gave "Casey" the idea. Casey rides with Merle to and from work, and the strain of worrying about the upholstery in that new Buick is too much for Merle.

The holiday season was tough on a lot of the boys. Red. Johnson, of win, and "Lex" Durkee, of Tail, each showed up at work with a skinned nose, and strangely they both got hurt running into a door! Joe Havlik, Drop Hammer Dept., and Lou Bigson, Hull, wore patches over one eye for a few days. They were hurt sliding into a door. Benson, of Machine, had a cut over one eye and you guessed it—some one slammed a door in his face.

The "lumberjack" shirts that Jack Bryant wears are getting him a reputation. Several fellows would like to challenge him to a log-rolling contest. H. Roese is managing Jack.

Tommy Jubert, of Raw Materials, is quite a songbird. Tommy sings week-ends at the Streamliner on El Cajon Ave., and warms up during the week on those unfortunates who must cash raw-stock requisitions.

Tony Andolino, of Wing, has bought himself a new fly swatter. Tony finds bugs of odd shapes and sizes in his lunch box and tools too frequently, and is getting sick and tired of jumping back and forth over the spar tables to evade the beasts.

The night crew misses Dick Moore, who transferred to day shift to take charge of PBY center sections.

Marvin Speed, of Tool Room, and Miss Polly Long, were wed at Yuma on Jan-

uary 12. Mrs. Speed is from Georgia and a real southern belle. Mr. Speed is learning his household duties rapidly at the last report.

Yuma is the place to go it seems. Dave Arnett, of Sheet, was married to attractive and popular Miss Helen Hudson at Yuma on December 24. You can discontinue those 8:30 phone calls now, Dave. Good luck to you both.

Red Johnson, Final Assembly Insp., is a good guy to have around, and the fellows should do something nice for Red's wife. Red always has some delicacy on hand to pass around, such as cookies, candies, etc., and it's all homemade. The peanut butter sure made a hit with Dick Emrick. Better bring some more, Red, we can't quite remember how it tasted.

The fire drill of last week was quite a surprise. It took a minute for the boys to get collected and then those volunteer firemen really showed some classy footwork. It took Ross Dilling quite a while to get started, but once under way he showed a lot of the boys a neat pair of heels.

We finally actually know some one who knows some one who won something in a radio program. Shelby Beats' mother won a brand new Willys on the "Tums" program last week. Congratulations, Mrs. Beats.

The new filing cabinet arrangement in the planning office looks like the beginning of a new "Maginot Line". Bill Wilson, Joe Kraemer, Jack Zinns and Art
(Continued on page 10)

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Personal Service for the entire family « «

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THE COMPLETE MEN'S STORE

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NOW

\$1500 \$1850

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SAN DIEGO'S FINEST VALUES

HOME OF
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UNDERWEAR

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"WHERE SMART MEN SHOP"

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Personal Supervision of the Owners Assures Careful Consideration of
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FOR ONLY ONE PENNY

I will operate your electric light for the following lengths of time:

| Size of Lamp | Hours | Minutes |
|--------------|-------|---------|
| 25 Watts | 12 | 7 |
| 40 Watts | 7 | 35 |
| 50 Watts | 6 | 4 |
| 60 Watts | 5 | 2 |
| 100 Watts | 3 | 2 |
| 200 Watts | 1 | 31 |
| 300 Watts | 1 | 1 |

**SAN DIEGO CONSOLIDATED
GAS & ELECTRIC COMPANY**

Stone man the pillboxes to repel the charges of clerks, dispatchers and others interested in advancing on process cards and blueprints.

Joe Merk, Sheet lead man, is leaving Consair to become an instructor in the Vocational School. Joe was well liked by all who knew him, and will be missed by many friends. Everyone wishes you the best of luck, Joe.

Levy Ely, of Wing, is the newest addition to the growing list of home owners. Levy is building in Austin Heights, National City, and is very enthusiastic about his new home. Levy has a schedule figured out that gives him two more working

hours during the day. We know he'll need them.

Ralph Berg, of Wood Shop, has finally transferred his interests from the hills of Majestown to the mountains of California. Ralph has a new home on Mt. Helix, where he grows avocados.

The story the Finish Dept. boys are telling about a rooster chasing a grown man down the street pecking him in the back of the neck may be true, but if it is I would like to know how much the "stuff" costs per quart.

Consolidator's families have been enlarging rapidly. Roger Heinrich, Materials, Russ Mounts, Final Assembly, Wayne Williams, Draw Bench, and Gordon Burns, of Wing, are among the proud dads.

George Wire has a new dispatcher, but cafe society has lost a patron in Danny Clemson. Dan thinks if Bender could get a blonde the new shift would be fine. With a brunette and a red head, the office traffic is increasing too rapidly, according to Lloyd.

NIGHT MAINTENANCE

By Stan Marcyan

O. Darling (Otto) had some red safety lanterns to place on some 14-foot high test piling on the grounds of the future north extension. It looked so far away that he hopped in his car and drove to the piling. We're wondering if he drove to save steps or his circumference.

All maintenance men are anxiously waiting for the establishment of an intra-plant taxi service to easily reach the far corners of *Consolidated*.

Roy A. Schultz followed Elmer Homan's example by escorting his bride-elect, Dorothy E. Loveless, to Yuma on Saturday the tenth.

All the rest of us, but Archie Bauer, who is waiting for Sadie Hawkin's day, are whistling:

"O, when I was single
My pockets did jingle,
I wish I were single again."



**BROWNIE
SAYS:**

For driving pleasure

**It's FORD
For FORTY!**

**FORD V-8
MERCURY V-8
or Lincoln-ZEPHYR V-12**

**BROWN
MOTOR CO.
India at B St.**

**also CORONADO
LA JOLLA
MISSION HILLS**

Lincoln Division • Columbia at B St.



**Keep PLENTY of
FRESH
QUALITEE
Milk
always on hand**

It far exceeds the standards set by law

Tune in on "Lowe Highlights"—KGB-Tues. and Fri., 8 p. m.

ANODIC ANECDOTES

By Bert Naseef

CONGRATS are due Harry Boyle, for his promotion to leader of our third shift. He and his doughty crew looked red-eyed the first week, but as Russ Haynes put it, "we're used to it now."

Rumor has it that three anodizers went south of the border one week-end to study night life in Tijuana. One of the boys, after sampling considerable native liquid, saw a puppy for sale for \$2.50. He bought it, carrying it with him until running out of funds. A council of war was held by the trio, as by now they were broke, and the car out of gas, resulting in a decision to sell the pup. After disastrous discounts had been made, the price went down to fifty cents, still no takers. The man who originally sold it to him offered him twenty-five cents, which was flatly refused by the justly indignant lad, who in a moment of disgust put the pup over a fence and let it go.

He suddenly realized that even though the pup was gone, it had left behind a vigorous population of fleas. Result: \$2.50 for a batch of fleas, also a hitch-hike at 7 a.m. Sunday, north of the border. Moral—buy gas before pups, and leave out the fleas.

We are justly proud of our ex-anodizer,

Fritz von Meeden, who left our ranks to become one of Jack Thompson's group of efficient inspectors. Congratulations, Fritz, from us all.

We would like to welcome back in our group Ted Lohman and Gaston Gonzales.

We have formed an anodic softball team, and hope to be given the rest of the teams in and out of *Consolidated* some competition when the season opens.

Ted Lohman was elected its manager, and captain, and wishes other team captains to contact him regarding dates for practice games. The players, so far, are: Wally Miles (Sonny Boy); Lester Ourhart (Gabby); Carl Johnson (Arizona Kid); Gaston Gonzales (Lefty); Jack Orr (Two Gun); Ted Lohman (Slugger); Emery Thoman (Curley); Russell Haynes (Boogy); Herbert Austin Maxwell Henderson (Red), and Harry Coyle (Irish).

The writer wants to thank Al Ballard

WHERE TO LIVE?

ASK

E. FRIEDRICK

NAVY RENTAL BUREAU

MAIN 1014

234 C ST.

"WE COVER THE CITY"

and Gaston Gonzales for their kindness in helping him move into his new home on 1076 Oliver St., Pacific Beach, and also other *Consolidators* who have wished him well.



MALE CHORUS

A movement is now under way to re-organize a male chorus or glee club. See Mr. Gilchrist.

Drink

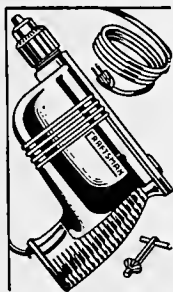
It's so Satisfying

That big bottle for 5¢

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CRAFTSMAN TOOLS for Every Purpose, On Every Job Where Precision and Reliability are Demanded! Yet Sears Prices Are 1/3 or More Less than Other Tools Approaching Their Quality!

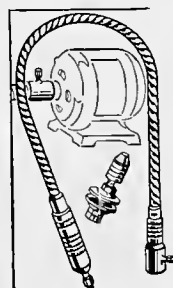
ELECTRIC DRILL



15.95

1/4 Jacob's chuck. Double reduction gears, two sets S. K. F. bearings, universal motor, convenient pistol grip and switch.

FLEXIBLE SHAFT



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The tool of a thousand uses! Buffs, polishes, grinds, etc. Ball bearing motor coupling. Quiet, smooth running.

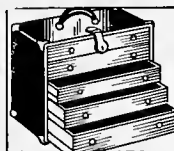
6-FOOT STEEL RULE



59c

Worth 1/2 more! Flexible steel. 1/2" wide; 6-ft. long. Metal case.

MECHANIC'S TOOL BOX



7.98

Wood frame, steel covered. Eight felt lined drawers. Reinforced corners.

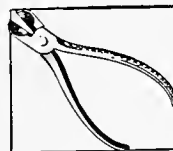
Craftsman Garage Vise



4.30

Cold Rolled steel slide bar, handle, screw. Replaceable heat treated jaws. 3 1/2-inch.

Diagonal Cutting Pliers



1.39

"Craftsman." Tough, clean cutting edges! Full polished. Blued handles. 6-inches.

BUY ANYTHING TOTALING \$10.00 or MORE ON SEARS EASY PAYMENT PLAN

SEARS, ROEBUCK and CO.

Sixth Ave. and "C" Street

Franklin 6571



Leo Danner and W. P. Moore point out the all-important sign, while Harry Bailey takes a quick look at the camera.

Consolidator

weight! As a result, instead of carrying a payload of thirty passengers as anticipated, it was impossible to secure a license for a payload of even one passenger. This airplane was the last built by that manufacturer.

In order that the airplane builder may turn out a completed airplane whose actual weight does not exceed that used as a basis for the performance estimate and the stress analysis, a rigid system of weight control must be established. Such a procedure is essential to the interest of the manufacturer. It is, furthermore, a rigid requirement of the Government which, on some contracts, pays the manufacturer a bonus based on the amount of underweight, or exacts from him a penalty based upon the degree of overweight.

WEIGHT CONTROL . . . By S. H. AVERY Engineering Department

THE sign pictured above appears in the Wing, Tail, Hull and Final Assembly departments and is familiar to many. Some, whose task it has been to follow its admonition and advise the Engineering Weight Group (Ext. 284) concerning some minor assembly or part about to be installed, have doubtless wondered why so much care is taken in securing detail weights. At the time of the weighing of a major assembly such as a wing or hull, or on the occasion of a completed airplane weighing, some of these same men have asked questions concerning the overweight or underweight and the method used in attempting to meet the estimated or guaranteed weight.

The purpose of this article is to point out the importance of weight control in the manufacture of an airplane and to outline briefly the general method employed during the design and construction stages in limiting the weight.

One of the most important factors making for optimum airplane performance is low weight. High rate of climb, so important to the military pilot; minimum take-off time, of importance where limited length of airport is available; and low landing speed, necessary for a maximum degree of safety, are only some of the elements of performance affected favorably by low weight.

Since performance is so closely related to weight, one of the first steps in the design of the airplane of today is the preparation of a careful weight estimate, which then forms a basis for the performance estimate. This estimated weight (or a slightly greater weight, representing an

arbitrary increase to provide for future contingencies) is also employed in the strength determination or "stress analysis" of the airplane.

Since the performance estimate and stress analysis are based upon an estimated weight, it is evident that the actual weight of the completed airplane should not exceed this estimated weight; otherwise the actual performance may be impaired, and the structure be of inadequate strength.

Such an overweight, if appreciable, would necessitate a reduction of fuel, and armament (payload in the case of commercial airplanes), or both. Reduction of fuel would, of course, result in a decrease in range or distance the airplane could fly. A reduction in military armament would mean elimination of certain equipment essential for fighting or protection; whereas a decrease in the commercial airplane's payload (passengers, cargo, baggage, etc.) might mean a serious loss of revenue to the operator.

A classic example of overweight is found in the design built by a certain transport manufacturer a decade or so ago. After many months spent in preliminary design, detail design, and construction, this manufacturer's new airplane was finally ready for weighing. Little attention had been paid to the subject of "weight" during the design and construction of the airplane. However, much effort had been expended on the matter of securing "aerodynamic cleanness of design" and the success of the venture was confidently awaited. When the weighing was completed it was found that the airplane was some five or six thousand pounds over-

Before outlining the general method employed in accomplishing this control of weight on a new design, it might be helpful to define a few terms commonly used:

"Weight Empty"—As the term implies, this represents the weight of the empty airplane, that is, the combined weight of the structure, power plant, and fixed equipment (instruments, surface controls, furnishings, electrical equipment, etc.)

"Useful Load"—In the case of a military airplane, this term represents substantially the combined weight of crew, fuel, oil, armament and disposable equipment.

"Armament" includes guns, ammunition, bombs, torpedoes, and pyrotechnics.

"Disposable equipment" includes a list of items specified by the particular branch of the Service contracting for the airplane.

In the case of a commercial airplane this term represents the combined weight of the crew, fuel, oil, passengers, baggage, mail, express, etc.

"Gross Weight"—This represents the sum of the weight empty and useful load, in other words—the weight of the airplane fully loaded for flight.

"Estimated Weight"—Any weight figure based solely upon preliminary design data.

"Calculated Weight"—Any weight figure based upon the physical dimensions and specific gravity of the detail parts.

From the above definition of useful load, it will be seen that its weight is fixed and, therefore, not capable of being controlled.

Since the greater part of the weight empty is dependent upon detail design, it is here that a system of weight control is necessary. Such a system consists broadly of the following:

1. A breakdown or division of the weight empty estimate into a large number of small units, the resulting detail weight summary serving as a sort of "budget" and being known as a "bogie."
2. The calculation of the weights of these units as they are designed and a comparison with the corresponding "bogie" weights to determine that the calculated weights do not exceed the "bogie" weights.
3. An attempt, where the calculated weight exceeds the "bogie" weight, to redesign the unit before allowing it to be released to the shop for construction.
4. Maintenance of a complete running summary of calculated weights so that any net overweight in the items already released may be compensated for by an equivalent reduction in the "bogie" weights of units not already released to the shop.
5. Determination in the shop of the actual weights of the fabricated units and a comparison with the corresponding calculated weights.
6. Maintenance of a complete running summary of actual weights so that any net overweight may be offset, where possible, by a further reduction in the "bogie" weights of units not already released to the shop.
7. Recording of all weight changes after weighing and prior to delivery (the flight test period) with an earnest effort to limit the extent of revisions affecting overweight.

Of the above items, the most important is the first, for obviously if the detail breakdown of the estimate is not reasonable, there is little logic in expecting the calculated unit weights to closely approach the "bogie" weights. The original Weight Empty estimate, although detailed in part, consists mainly of estimated weights of major assemblies such as wing, ailerons, flaps, stabilizer, fins, rudders, elevators, etc., which estimates have been derived from a consideration of such factors as area, span, load factor, gross weight, geometric shape, etc. A detailed breakdown of these particular assemblies into such detail items as front spar, rear spar, fittings, ribs, bulkheads, plating, stringers, trailing edge, leading edge, etc., is accomplished by preliminary stress analysis, the use of unit weight to assembly weight ratios obtained from actual designs of the same type of construction,

the application of empirical formulas, or by the judgment of the weight engineer.

Since the number of detail items into which the weight empty estimate is divided amounts to several hundred, and since the number of drawings representing these items runs into many thousands, it is clear that an efficient bookkeeping system is essential to properly coordinate the calculated and actual drawing weights with the "bogie" figures. Without such a system, no true weight control system can function.

In addition to a system of weight control outlined briefly above, an equally effective system of balance control during the design and construction stages is necessary in order that the balance of the completed airplane may closely approximate that used during certain wind tunnel tests. This begins at the time of the preparation of the original weight estimate when an estimate of the fore and aft location of the center of gravity is made for various specified loading conditions by the application of fundamental principles of mechanics. During the detail design and construction stages a running check is maintained of change in center of gravity location caused by variation of calculated and actual detail weights from "bogie" weights, or by the change in location of equipment. In case an appreciable change in balance is indicated, it may then be necessary to relocate certain equipment or redesign items remote from the airplane's center of gravity.

In conclusion, it should be noted that the application of a perfect system of weight and balance control will not produce an actual weight empty and balance approximating that used in the performance estimate, stress analysis, and wind

tunnel tests unless the original weight and balance estimate is reasonable. Since certain empirical formulas used in the estimation of the weight of the structure (which comprises some 50% or more of the weight empty) are derived from actual weight records of a relatively few existing designs, it follows that the accuracy of the weight estimate should increase as actual weight records are available for an increased number of designs covering a widening range of gross weights. This then constitutes an additional reason for the determination of actual weights in the shop and for the shop warning "Weigh All Parts Before Installing, Phone Extension 284."

THE HULL TRUTH

By Chuck Farrell

THE night shift in Hulls have organized a bowling team to compete in the shop league. Louie Fisher is acting as captain and manager. Other members are Stevens, Panhorst, Mayberry and Farrell.

The reason "Killer" Manning has been breathing flame lately is that he mistook a bottle of that Mexican hot-stuff for catsup.

Ed Koehler has been treating the boys to handfuls of Pine-nuts he brought back from his mining property in Baja California, Mexico. Just at present the mine is flooded with sixty feet of water, but Ed hopes to get bailed out "sometime."

"Vic" Mainhart has been telling everyone what fine cakes the "little woman" bakes. Last week he proved it with a generous slice of walnut cake. Many thanks, Mrs. Mainhart.

Flash! Walt Evans, of Hull, and Betty Pleasant, of the Aircraft Cafe, were married February 3rd in Los Angeles. The best of luck to them both. Walt is a deputy in San Bernardino county sheriff's office, and a member of Redland's Mounted Police. In fact, he rode with the mounted group Saturday, February 18th. Cigars coming up?

Frank Popp greased his car, but did not stop that annoying squeak. It is no fault of the car. It comes from that ancient time-piece he carries.

What lead-man had an accident with his car and, after expensive repairs at a downtown garage, started home only to wrinkle up a fender on the way, and all without benefit of insurance?

Shelby Best, our high-speed stock man, is a very efficient amateur camera man. He has some excellent snapshots of PBV's, B-24, and 31X jobs. However, like the true artist, he is very modest and insists he can do better.

Med Sherwood of the weight group and Ed L. Brenda of Wings check up on the actual weight of a wing rib. It looks like a good job of estimating and a good rib job!



HULLABALOO

By Al Leonard

GEORGE "Scavenger" GALLEY had to make a personal appearance at the police station a short time ago, and as his car was laid up for repairs he borrowed Norm Wire's car to go downtown in. When his business was finished he came out and tried to start the car, but the key would not turn in the ignition lock. George tried for some time and even en-

listed the help of a passerby, but still he could not turn the key. While he was working away with no results, a police detective came out of the station and asked Galley what he was trying to do. George, who was pretty angry by this time, replied that all he was trying to do was to start the car. It didn't take the detective very long to tell Galley that he was in a police car. George tumbled out in a hurry, and was his face red when he saw his car parked right behind the detective's car that he was trying to start!

"Dutch" Klien is the only man in the country who has a legal right to be in the dog-house. Mrs. Klien just bought a dog license for their dog, and its number was 5015. "Dutch's" clock number is 5015.

"Brute" McJoiner, who struts around all day long, showing people his muscles, is on a milk diet. Sore tummy.

Now that the Hull Golf Tournament is started again the early morning Klock Kibitzers are at it again. Everybody is bemoaning their handicaps and they all swear they're being robbed. Gordon Shoop is negotiating for a new set of clubs and insists he will not hock them after this tournament is over. "Red" Chaplin had his dad come all the way out here from Buffalo to caddy for him. Chaplin has already cautioned his dad to be sure to count all his opponents' strokes. Johnny "Yap Yap" Hopman has made arrangements with the golf course officials to start playing at 2:30 in the morning, with the aid of lanterns so he can finish by supper time.

'Tis rumored that George Wire is secretly training his night Hull basketball team for a game with the day Hull team. It's a queer coincidence that the day he



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picks for practice is the day the ladies' gym class meets.

Russ Kern says since the balcony has been built over his desk several new men have come to him for files and drills thinking he is connected with the tool crib.

Familiar sayings:

Night Crew: "The day gang did it."

Day Crew: "The night gang did it."

The Hull Department will hire two Boy Scouts experienced in the art of Signaling with flags to transmit messages from North Hull Dept. to South Hull Dept.



HEARD ABOUT THE HULL

By Bill Pettit, Hull

"You see," said Tom Eakles, to the puzzled clerk, "I want six pieces of plywood, then have the wood shop cut these in half and I have eight. Get it?"

"Maybe I'm kind of dumb," said the clerk, "but I don't!"

"You know, it's kind of dangerous to walk under that ladder," reprimanded Glenn Hotchkiss, hull foreman. "Don't you believe in superstition?" Imagine Glenn's surprise when a minute later he glanced upward and saw a huge steel girder swinging to and fro about three feet from his face! Need it be said that Glenn rapidly vacated the premises?

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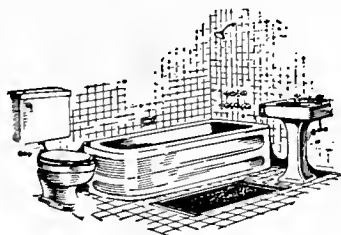
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MACHINE "OIL"

By Al Pfeiffer

WE learned that the satirical wit and exquisite parlance of Brad Bradshaw is inspired by his dreams. Many a time and oft, Brad rises at 2 a.m. to record his nocturnal literary findings. Tried the same thing but N.G.—even that last bottle of beer was gone from the ice box at that ungodly hour. So we proceed to slip you the dope in the ordinary way.

It seems that some fellows have all the luck! Bad luck in the case of "Dagwood" Bowling. Married exactly a month, he fell heir to an attack of acute appendicitis. Period of hospitalization is now over and from all reports, Junior Bowling is doing splendidly. To complicate matters Bowling, Sr. was disabled about the same time. As he returned home after work the car in which he was riding, careened over a 10 foot embankment. Result was a severe fracture of one of the carpal bones in his right hand. We repeat, some fellows have all the luck.

Tracing the origin of leap year, we've been wondering if it isn't the outgrowth of the Garos doctrine of India. Theirs is the happy custom of a woman requesting the hand of the man in marriage. More-over any man daring to submit a proposal to the young lady of his choice is promptly fined.

Maybe this latter tenet could have forestalled a like movement on the part of Pagliuso and Valente. The former's execution is slated for the first week in April. Valente demands Maybells. When charged for a reason Valente replied, "It's all in your attitude of things, besides I've had experience." Pagliuso on the other hand is a triple threat man.

A common occurrence is to pick up the phone and hear someone ask for "Jello." The name, if you please is John Emerson Woodward Ware or if you prefer, "Where is Ware?"

And while we are on the subject of names, it recently came to light that the "M." in M. Roy Larceval, stands for Marcus. Don't be daunted Roy, think of all those other handsome Romans who blithely sallied thru life with just such a monicker.

A. H. Roberts, 6' 4" of real masculinity is in a quandary. Just this—where shall he rest his lanky frame? At the 270 acre ranch at Barrett or the smaller establishment at Spring Valley? Need a hand pal?

Interest in sports and activities has reached an all-high peak. We've heard it rumored that a Consair boxing team is in the making. To which Art Scodes offers his services as trainer. Prospects for pugilistic fame are encouraged to speak to Art. With similar movements at Douglas and other plants, *Consolidated* is not to be found wanting.

Quoting Art Woods on marital enterprise, "I'd sure enough like to try it, if I could only save the money for the license and a trip to Yuma."

The Frichtel brothers (Joe, Jake and Ted) are entertaining visitors these days, their mother and a niece from St. Louis. Show them all of sunny California boys, and Missouri will lose two more taxpayers.

Life is just one picnic after another for the night shift basketball teams. This time at Lake Henshaw, Sunday, Feb. 10. Climaxed by a party at the Ruzich household, they celebrated the close of the 1939-1940 campaign. The group wishes to announce that applications for the softball team are now in order. Especially since one teammate Roy Schultz is facing interment. It seems Roy eloped to Yuma with Dorothy Loveless to tie a lover's knot. C'est la guerre!

With all this marrying there's sure to be a need of legal advice. Did you know that Elmer Buschbaum possesses extensive knowledge along these lines with degrees of L. L. B. and L. L. M. (This plug should call for a share in the fees, Erwin.)

Love note—Bill Love hereby requests that all future messages written to him,

reverse the order of words or insert the word please: To read, "Note Love! or Love please note."

The scarcity of information for these columns moves the writer to again advise you that contributions are mighty welcome. Further, that the management will not invoke any article of the espionage act for disclosing such knowledge. *Come on Fellows, Let's Give?*

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WOOD SHOP CHIPS

By J. E. Hodgson

WOOD carving is probably the oldest known handicraft and as such calls for a very high degree of both artistry and skill. In Europe, while a considerable amount of hand carving is still being done, here in America, due to our high speed technology, it is almost unknown, except as a hobby or on articles designed to individual taste or requirement.

The carved plaque, here pictured, is the work of Everett E. Jacobson, of the wood shop. Mr. Jacobson is the fourth generation of wood carvers in his family. His great grandfather, a master carver in Gothenberg, Sweden, on his death left his business to his son, who came to the United States to judge the carvings, both wood and plaster, in the Chicago World's Fair of 1893. He was then employed as a



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(BUT, see page 25!)

carver and designer for the Pullman Car Company.

In 1927 Mr. Jacobson, the 3rd, won first prize, awarded at the Metropolitan Museum of Art, in competition with 1100 eligible contenders from all over the world.

Our present Everett, carved designs to be reproduced in the Chrysler Building, New York City; the City Hall, Denver, Colo., and between the years of 1931 and 1933 made replicas of the bibliographical objects discovered in the famous tomb of King Tut-Ank-Amen for Mr. Richman, who sponsored the archeological enterprise.

We asked J. L. Sievert how he was coming with his "Cine Kodak." He informed us that he is still in the experimental stage, though he has some fair pictures of Balboa

Park, San Diego bay, and some taken in Riverside, Calif.

Bud Hadley, together with Bob Hall, will put on a floor show at the U. S. Grant Hotel during a "Delta Sigma" fraternity party March 16. Bud and his lady friend will present an "expose" of dancing with "Adagio in Swing." These partners are several time winners in dance contests.

Harry Connely, you know the guy—he works in "Mike" Mullicans' gang—went and got himself married on February 2d.

All swimmers interested are invited to join the Consair Swim Club, the object being to train for a series of distance contests to be held in Mission Bay under sponsorship of the Pacific Beach Chamber of Commerce. A second group will be formed of strictly novices, who have never competed in AAU swims. In addition to regular prizes, bronze medals will be given to all swimmers who go the distance. Bob Harshaw and John Woodhead, Sr., will be pleased to coach any inquiring novices. See them and start training right now. They meet at Silver Spray plunge every Tuesday night for practice and coaching and—by the way—the coaching service is free.

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SOME SPORT SLANTS

By Matt Wielopolski

OVER-CONFIDENCE in their ability to retain the city and A.A.U. championship for 1940 caused the *Consolidated* Hull team to lose two close games and thereby lose a chance for another title. However, we have assurance that Fred Grossher's boys will end up in the playoffs, especially if "sharpshooter" Tommy Johnson gets hot. To date, Tommy is leading high scorer in the city basketball leagues, and that's barring none.

Incidentally, the night shift league leaders are also the Hull team, led by another high point man, Rock.

The Machine Shop basketball team ended their season in third place. With a few more men (thirteen) to their roster, their manager, Vic Racko, held first softball practice on February 13. Up to press time, their secret practice sessions show surprising superiority. No doubt Mr. H. Golem's boys are out for titles.

Today, March 1, at 7 p.m. in the Muni Gym, Balboa Park, we begin our *Consolidated* Badminton Tournament. All matches and flights for men's singles, doubles and mixed doubles were drawn upon under Mr. William (Bill) Gilchrist's guidance, and "Johnny" Lockwood and committee's supervision.

A similar tourney is to be held for our night shift employees and close friends at 10 a.m. in care of Craig Clark, and there is no admission fee to this exciting, thrilling, humorous and interesting new sport.

Art Scudes will coach, instruct and train any young man in the "art of self-defense." He would like those boys who are interested enough in boxing to try competitively for a Consair Boxing team. Golden Gloves preparation or professional or semi-pro aspirations. What do you say, Bob Hyder and Bob Passenheim? Why don't you boys bob up and start the gloves flying? In case you folks don't know it, back in 1929 or thereabouts one of Art's boys lost in the semi-finals boxing match to Joe Louis in New York. Art, himself, was quite a fighter in his day, and he can still prove it, teaching.

Night shift bowling league at the Elks

simply proved the sad but true saying of most of us:

"For years I've bowled—but even so
My average score is mighty low.
My arm is strong enough, but still
Those cursed pins I cannot spill.

"But oh how well we duffers know
That once a dub—we're always so.
A flash of form—and then, alack,
We're soon back in the same old track."

Despite the splits, misses, slips, gutterballs and few strikes and spares, the night-owls managed to get out of bed at 8 a.m., eat at 9 a.m. and bowl at 10 a.m. And bowl, they did—with never a dull moment!

BASKETBALL

Red Sails Inn and Tank Team

1. Saftig, Captain.....Center
2. ConsaulGuard
3. MendezForward
4. MorganGuard
5. KrellForward
6. AllenGuard
7. SummersCenter
8. ParksGuard
9. SilverthorneForward
10. EmeslieGuard

Manager Tank, Sid Riches.

Manager Red Sails Inn, W. L. McCan.

The Red Sails Inn team is now on top of the heap in the Commercial League. The same team as the Tank Team, is tied for first place in the second round at *Consolidated*. The team is hitting its stride and intends to end up at the top of the list in both leagues.

Mendez, flashy forward for the Tank, is one of the six highest scorers in the city.

The team suffered a set back when Silverthorne, first string forward for the Tank, fractured his arm in the Green Spot game January 31, 1940. Mendez has been shifted to Silverthorne's position and Parks

is filling the bill in Mendez' shoes. In this new arrangement, the team is clicking in excellent shape.

C. H. Choate, Tank.



Born to Mr. and Mrs. Wallace Clemens January 25th at 1:01 a.m. a daughter, Kathleen O. Clemens, who weighed just 6 lbs. 2 oz. According to reports all are doing nicely, including the father.

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PRODUCTION MINUTES

AS we go to press we get a flash that the most dependable member of the airways, except the PBY's, the single motored amphibian "Stork" has been forced down for a complete overhaul job due to the excessive flying hours for the craft to meet February deliveries. Recipients of cargoes in the form of "bouncing baby boys" were the Jimmy Syrens, Craig Clarks, and Eddie Generas, the



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latter getting the "jackpot" with an 8-pounder. Calculations were a little off from the "income tax standpoint" and Uncle Sam says their intentions were O.K. but January 31st is the deadline for "dependent deductions." Don't worry fellows as there may be more for the next year.

Besides babies during the month, we find the less fortunates — not completely counted out. Roy Coykendall rolled a 268 game which made him prouder than "Father Dionne". Lloyd Bender, Paul Gaughen, Don Rasmussen and Louis Purcell, newcomers, are working the night shift which their wives claim is a little inconvenient but at least gives them the knowledge of where "hubbies" are (for their benefit the shift is over at 12:30). Kel Aiken reports that Barney Chambers, although new to *Consolidated*, is surely making his mark in the plant, and for evidence you can find his footprints in the new concrete by the stockroom. The lad probably thought he was at the "Grauman's Chinese". Freddie Rosso, who always manages to make "headlines" (although the last time it cost him 43 bucks) is secretly planning on copping the title of "Ferdinand No. 1" with that "exotic" sweet-smelling and gorgeous flower garden. Dropped in on Bill Liddle the other night and was treated to a sparkling bottle of ice cold beer. Better get the address and drop out fellows for the novelty of that kind of hospitality may not long endure. It is true that Bert Gimber put a nickel in the music box at the Aircraft Cafe but he was playing for the "jackpot" and thought he might get the records for Elizabeth. "Lil Abner" Gandee reports that "Pappy Yokum" Holcomb has things going as smooth in the Machine Shop as "Dogpatch" itself after they got

rid of the Skunk Hollow Agitators. "Lonesome Polecat" Golem claims Holcomb is an expert at locating the various colored travelers as he can look through or over his glasses with equal precision. George Young is trying to do the city out of an obsolete traffic signal with "Stop" and "Go" to inform Wilkinson, Seeley, Doer, Waite, and Edwards the status of a job from his desk. We have read several statistics of athletic feats in 1939 but have not yet seen Ed Kellogg's famous slide across Broadway on the records. Perry Ogden is having the same trouble as F.D.R. in balancing his "order budget." About the only fact he can get is Hartmayer's report that "on a good day we should have the box filled by noon." Ted Anderson entertained those "city slicker card sharks" Mulroy, Miller, Butterfield, Clemson, Wiley and Ambrose at his new home and from the worried look on his "pan" one of the fellows must have the "mortgage on the old homestead." Jimmy Wainwright informs me that they are going to put a leading edge on the PBY's after all. We were a little worried that slashing the budget appropriation may have knocked Herb Ezard out of this work. The best part of Dan Miller's new work in Purchasing, he claims, is to be able to chew the fat with Golem and Nelson nonchalantly talking in the million figures. Those *Consolidators* who have not joined the N.A.A. are missing some real treats, the last one being Commander Rosendahl who with Commander Mayer, head of the Navy Inspection Department of the plant, are two of the world's most able authorities on "lighter than air" crafts. Go down next time, knock three times, and say that "Brad" sent you.

Latest reports from the "Planning battlefront" was that Tool Design under the strategic Von Doren, had moved up on all fronts but "Sergeant" Bob Jones and his Plant Engineers were holding ground with a series of counter-attacks from the north. Completely disorganized "Captain" Bill Ring and his Production Engineers were fleeing in disorder toward the safety of the "X" building. The Production forces of "General" Perry Ogden and "First Lieutenant" Lloyd Bender were sev-

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ered and like the Russians in Finland were wandering aimlessly over "Planning no-man's land" trying to figure out the location of their strongholds. In the "north-west corridor" "Dictator" Paul Hoch and his aide Bill Holman have gathered their troops behind barricades of files for a last stand. "Commander" MacDougal without an army is cornered in the southwest unable to advance or retreat.

Lucky for Ed Generas that he is already practically "hairless" as he adds to his troubles day by day. Last month a new baby boy and now he takes over the duties and "grief" of Bill Liddle's job. (Bill (Little Daniel) is being tossed into the "den" of Bill Rennison and Bob Mussen, with those three "femmes" the only consolation) Generas says that he is now in the worst fix since he got married.

Lloyd Bender presented me with some swell fresh water fish a short time ago and after I learned the story of the hardships that this super-fisherman along with Geo. Newman and Roy Smeltzer endured for the catch I should have preserved them for trophies. The man at the boat house, Roy knew, had a day off so no boat, but this did not stop the "perfect host" who used the "touch system" down to his last "buck" to get the craft and further convincing the attendants that the biggest "fish" are on the shore. The "ripples" of the lake also played havoc with that old mariner Bender, who seems to have lost his "sea legs," misplacing his stomach, and the only remedy handy being those "slimy mud suckers" which didn't help. The catch was good but most of the "brain food" to adorn the Bender table in the future will probably come from the corner "fish market."

Out La Jolla way I stopped in to see Prof. "Chuck" Hibert and found Ernie Johnson also visiting, but if there was a drop in the house "Chuck" can surely keep a secret, as Ernie and I stopped for a soda after leaving. "Chuck" showed me his "Den" or what *was* before the children took over. The visit was cut short due to the "fuss" because Mrs. Hibert refused to let "hubby" go to play the pinball machine, which according to "Chuck" is such good

fun when the big "American flag" lights up. "Oh Goody!!!"

Consolidated Rod and Reel Club awarded the prizes for the "Catches" during the season and again that "master fisherman" Roy Coykendall came through with most of the "booty". Thurber. Landsburger, Hopman, Al Johnson and Lou Miller were other winners, Lou with that "Three season old" Croaker that he weighed according to a reliable source, with the sandbag sinkers.



TOOL DESIGN TIDBITS

By Maguire

March Winds are blowing, so I guess it's time for "Tid-bits."

We're sorry to report that Marcella Holzman has been ill for a week and hope that she's back before this goes to press. We miss her cheery "Good Morning."

Bob Van Doren, son of J. W. Van Doren, last week passed out chocolate cigars at school. The reason may be found on page 20. Mr. Van Doren says, "Wanted—name for pinto colt, about two weeks old. Free Marble game for best name submitted." Wes Kline please note.

Le Maire ("Lem") we're sorry we ever said anything about your sore arm, after seeing the picture you brought in of your "kill" in Mexico. A swell brace of birds. See picture page 20.

Roy Smeltzer now has a phone. If you don't believe, it ask George Gerstmeier.

Bert Rowan is no longer "Hull", he's now "T.D." Glad to have you, Bert.

C. Smith, our San Diego to Los Angeles Commuter wants to "do" Tia Juana—But you'd better take Bob Hyder with you. The Department is moving—again!



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GUN CLUB X'S

By H. M. Prior, Secretary-Treasurer

During the first month of 1940, we of the *Consolidated* Aircraft Gun Club have welcomed into our ranks as new members Elden E. Carpenter, G. C. Hammet, C. T. and E. A. Earnest, who are giving our old "Dead Eye Schnaubelt" a run for his money among the night crew shooters.

In the regular day crew contingent, we welcome J. E. Schreiner, who is also a mean shot with a bow and arrow, Fred Evans and Mr. and Mrs. Chet Sheppherd. Incidentally, Mrs. Sheppherd is plenty good in anyone's league.

The honor of being the first to win one of our new club emblems is divided between Chet Sheppherd and Felix Kallis. From the score to date, for the month of February, the battle for the gold medals in both rifle and pistol shooting is going to be a tough one, and the results will not be known until the last shot has been fired on February 28.

To any new men at *Consolidated* we extend a welcome to join our club, and attend our weekly shoots held every Wednesday night at 7 at the Stanley Andrews Co. Sporting Goods store on Third Ave., between B and C.

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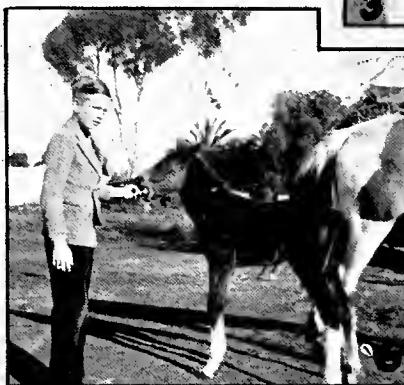
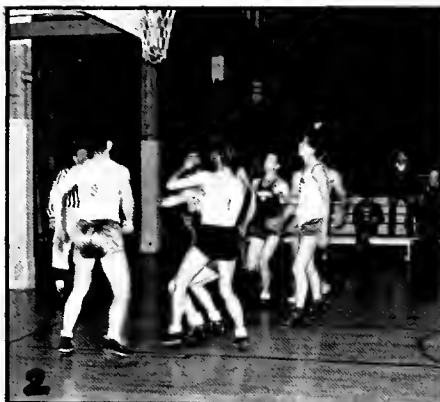
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NEWS & VIEW'S AMONG CONSOLIDATORS

1. First-Half Champions: The Hull Team: Standing, left to right, V. Gilmore, S. Shepard, E. Bell and J. Kinkle. Bottom: R. White, T. Johnson, N. Heckerorth. J. Look was absent when the photo was taken. Backhaus photo.

2. Action shots of some of the boys putting up a tough fight on the basketball court.

3. Tank Basketball: Standing, left to right: S. Riches, Mgr.; W. Consaul, J. Saftig, Capt.; McCann, J. Emslie, M. Mendez. Left to right, kneeling: F. Morgan, W. Silverthorne and Krell. Photo by Backhaus of Tank.

4. A word about L. V. Lemaire and the 30 quail Lemaire shot in Mexico recently will be found in Tool Design Tidbits by Maguire.

5. Melvin "Knut" Knutson of the Carpenter Shop, snapped out at the San Diego Flying Club. For a word about "Knut" see Flying Club News.

6. J. W. Van Doren, Tool Design head, has a "Rancho" in Chula Vista. Young Bob Van

Doren is here proudly showing off the ranch's latest addition. To hear Van boasting the way he has been you'd almost think mama Mare had nothing to do with the bringing of the young one into existence!

7. At the San Diego Flying Club: Left to right, standing: Bud S. Selenreich, Harry Culver, Tommy Paulsulich, Howard MacDonald and DeMahy. Kneeling: Left to right: Charlie Culver, W. H. Anderson.

BADMINTON

Consolidated's Second Annual Badminton Tournament will take off in a "two-flight" formation on Friday evening, March 1st, in the Municipal Gym at Balboa Park. Those "birds" whose motors fail to triumph in the first flight will spin into the "B" formation. The events being played this year are Men's Singles, Men's Doubles, and Mixed Doubles. Many new players are entering, providing that ever present possibility of "upsets". Rumors (or propaganda) are spreading to the effect that Mendez (Tank Dept.) and Aiken (Finished Stock) will be responsible for some of the aforementioned upsets.

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SAN DIEGO FLYING CLUB

Activities at the San Diego Flying Club's field known as Grande Vista Airport, have been unusually good considering the time of year.

The club boasts of three new members: Bud S. Seltenreich, of Ryan Aeronautical Co. Inspection Dept., Herbert Ruiz, of Sheet Metal Dept., and your humble scribe A. H. Davidson of T. D.

The following members have made their first solo recently, M. Kugel, W. H. Anderson, Bud Seltenreich, Bill Travis, and A. H. Davidson.

Bud Seltenreich now has 25 hours solo to his credit since first of December. He is from Alaska, where he flew with Star Airlines as flight mechanic.

Bob Goodyear of Engineering who has a private license, has soloed the Rearwin, and expects to go up for his 2s rating soon. H. R. MacDonald also of Engineering will be getting his private license soon in the 2s Rearwin.

Mr. John J. Hospers, Representative of Vought-Sikorsky, at North Island, for the past ten years is expecting to take his examination for private pilot's license the last of this month. Mr. Hospers holds Airplane and Engine Mechanics licenses and along with Bud Seltenreich has been instrumental in keeping the club ships in A-1 condition.

All the ships have recently been relicensed.

The club is contemplating purchasing a new 50 h.p. Piper Cub. The Cub is a very popular ship among the members of the club and they have decided that there is a need for another ship of this type.

Miss Nita Day's Taylorcraft, and Bob Jacquot's Waco are being kept at the field now. Jacquot operates his Waco in charter service to Lower California.

Now that the hunting is over Mr. Melvin Knutson of the Carpenter shop is around the field more. "Knut" has his 1s and 2s ratings (private and flies Rearwin a good deal.

The accompanying photograph shows Knutson in his flying togs, ready for action. It is rumored that Knutson, Charlie Culver, and B..... have been very active in providing the members of the

fair sex, who visit the field on week-ends, with aerial transportation. Harry Culver, club instructor, and Bud Seltenreich have been doing their parts in escorting the ladies to the ships.

EXPERIMENTAL NEWS

Clock 1334:

The boys of X department have been wondering what happened to that red check shirt that Carl Vollmuth used to wear. What's the matter, Carl—too much kidding?

The next time there is a nurses' dance, we wish Ted Barnes and Fred Brennecke would tell the rest of us, rather than go alone and have all the fun.

Clock 8071:

According to Elmo "Arkansas" Ulmer, of the X department, has completely readjusted himself to city and factory ways. He is no longer frightened at factory whistles, nor does he look up intending to see a stray cow at the sound of a bell. Elmo even smiles contentedly at his shoes, which he is fully accustomed to by now, though he admits his kinfolks had to chase him five miles down the pasture to catch him when he "test hopped" his first pair four months ago.

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BOWLING NEWS

By H. K. Clay

Three quintets of keglers have the advantage in the race for the Consair championship which is now entering the home stretch at the Sunshine Alleys. The crack Experimental team with Eddie Lang, Ward Levere, Russ Wright, Otto Peterhansel and Walt Sherwood in the major roles are leading the vanguard with 54 points won and 26 lost. Second spot is held by the Engineers who have a total of 53 wins and 27 losses while the well-oiled Production No. 2 aggregation is in for third money with 52 points won and 28 lost.

Roy Coykendall, lead-off man for the

Production No. 2 quint recently turned in a scintillating game of 268 at the Sunshine. Roy started out with eight straight strikes and the crowd of fans who saw a possible perfect game in the making clamored for four more and a perfect score. The ninth ball hit the pocket for what seemed a perfect hit but the ten pin only wiggled and failed to fall. This is the highest league game registered at the Sunshine in a three-year period and Coykendall was presented with a memento by the management in recognition of his feat.

George Clayton of the Engineer's league likewise covered himself with glory February 6th by turning in an unusual game made up entirely of spares. Clayton registered his all-spare game the night of February 6th.

An open challenge to the cock-eyed world has been hurled by Hal Leppart, crack keglers of the Production No. 1 team and Michael Brooks of the Hull No. 1 quintet. These two pin-buffers believe that they can take the measure of any pair of bona fide keglers registered by any industrial concern in the region. Not only are they perfectly right in their assumption that they are a tough pair of kegling artists but it is doubtful if ever the challenge is met. We know of only one pair capable of giving them some real competition and they are with the Ryan Aircraft. If Harry Miller and Bill Helmer decide to call the Brooks-Leppart ultimatum a huge crowd will be on hand to watch the strikes recorded.

A new name to conjure with has been

discovered in the Consair league. Walt Sherwood of Experimental has been burning up the drives of late and is one of the main factors of the leading position occupied by the Experimental team. When Ed Hanzlik went on the night shift Sherwood took over his berth and he has more than earned his spurs. Starting out with a mean of 162 he has built his average up to 171, turning in several brilliant series in so doing. A couple of weeks ago he came through with three games totalling 643 and he has had two more slightly under that mark.

The National Shirt Shop prize offered to the Consair keglers who would bowl exactly 30 pins over their average in a single game on February 16 resulted in a five-way tie with no one hitting the nail on the head. Al Ballard, Wallace Tibbs, Owen Gandee, Tom Joubert and Tom J. Coughlin each missed by one pin. The five players are slated to compete further to decide the winner.

The shooting of the Raw Material team has been a bit ragged so when Tom Joubert turned in a 219 game on the night of the 16th of February, Bob Marks and other members of the team howled with glee. Not only did they accuse Joubert of laying down in the past but declared the aforesaid player had better strut his stuff to the same tune in the future. In any event Joubert had a 515 series which marks a turn on the Joubert barometer.

The Purchasing team went on a scoring spree the night of February 2 in their match against Production No. 2. They took all four points from the latter outfit and set up what purports to be a record for Consair. Paul Hoch tallied a 526, Frank Field registered three games for a 488 total, Eddie Jones amassed 514 pins while Frank Meer had 625. Frank Cary, the Purchasing anchor-man toured the layout for a 598 total giving his team games of 922-974 and 865 for a grand total of 2761.

The leading Experimental team likewise have posted unusual series in their quest for the Consair gonfalon. On January 25 the hard-hitting quint had a team series of 2679 pins with every player on the

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team breaking the 500 mark. Lang had a 552, Levere 506, Peterhansel 520, Sherwood 575 and Wright 526. This is the first time that five players on a team have each cracked 500 the same night.

Tom Coughlin of the Engineering department has been publicly acclaimed for his activities in the bowling game and the good that the game has received as a result of his organization of the Engineers' league which has operated at the Sunshine for the past three years. A local sport paper praised Coughlin unstintingly and placed him high on a list of seven local sportsmen to whom are given credit for the local boom in bowling.

LEAGUE STANDINGS

| | Won | Lost |
|------------------------|-----|------|
| Experimental | 54 | 26 |
| Engineering | 53 | 27 |
| Production No. 2 | 52 | 28 |
| Production No. 1 | 49 | 31 |
| Finish | 48 | 32 |
| Hull No. 1 | 48 | 32 |
| Purchasing | 44 | 36 |
| Hull No. 2 | 42 | 38 |
| Machine Shop | 39 | 41 |
| Maintenance | 37 | 43 |
| Tank | 30 | 50 |
| Final Assembly | 23 | 57 |
| Raw Material | 22 | 58 |
| Sheet Metal | 18 | 62 |

ENGINEERS' LEAGUE

| | Won | Lost |
|-----------------------|-----|------|
| Loft No. 1 | 47 | 25 |
| Flap | 40 | 32 |
| Loft No. 2 | 40 | 32 |
| Hull | 39 | 33 |
| Armament | 36 | 36 |
| Loft No. 3 | 36 | 36 |
| General | 32 | 40 |
| Fixed Equipment | 18 | 54 |

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And though some work hard, and others work less Down in our hearts we really confess That if we must work, and it seems that we must, While building our ships, we'll build good ones or bust!

(Editor's Note: Why be bashful? We'd like to know the author of this commendable little poem.)

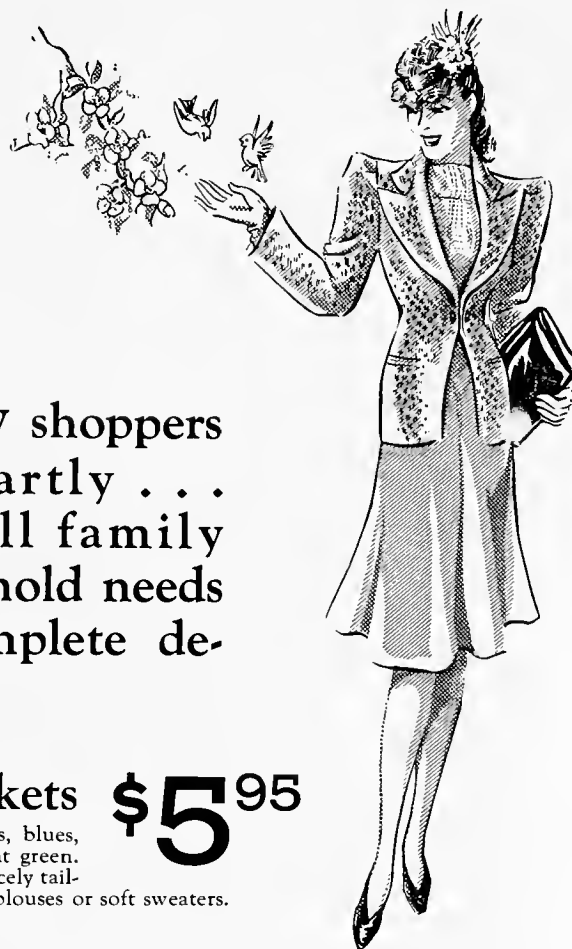


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So. California Flyers News

By Al Griffith

After a little over two months of operations, flying every night after work and Saturday and Sunday all day we have flown about eighty hours.

Joe Havlik of DH Dept. has about twenty hours solo time. Ken Smith of FA Dept. also puts in his time in the afternoons. Pat Dowling of PR Dept. made his

first solo hop February 15th. You should have seen his face! One big smile from ear to ear. A few minutes later Fred Robertson made his also with the same big smile when he taxied up to the line.

In our group we have several more nearly ready to solo. Some of them no doubt will have soloed by the time this goes to press. Among whom are Bill Sutton of PR Dept., Tommy Saunders of DB Dept., and Bob McGreagor of Lemon Grove. Ray Dinson, Isabelle McCrae, Joe Hollenbeck and Bill Luffe are pulling up their solo time. Bill Durlinger of PR Dept., who was our last member, is going to catch up as he is doing quite a little flying now.

We had our first ground school last week with the repair of a broken crankshaft. Our good friend Rolly Tyce of TR Dept., also owner of the Tyce School of Aviation in Chula Vista, stepped right up to our rescue and put the motor right up in first-class condition again.



Each merchant or business represented in the *Consolidator* has placed in his advertisement a message of personal value to you! A way to save . . . a special service . . . an opportunity. Read these messages. Then mention the *Consolidator*.

A note appended to the following poem reads: "To the editor of the *Consolidator*, Dear Sir: As the wife of No. 7085, may I donate this piece of poetry for our magazine *Consolidator*?" . . . And the answer is, "You certainly may, Mrs. Robert Kelso!"

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But are you getting ready to deserve the larger pay? If there should come a vacancy with bigger tasks to do,

Could you step in and fill the place if it were offered you?

Tomorrow's not so far away, nor is the goal you seek,

Today you should be training for the work you'll do next week.

The bigger job is just ahead, each day new changes bring—

Suppose that post were vacant now, could you take charge of things?

It's not enough to know enough to hold your place today,

It's not enough to do enough to earn your weekly pay,

Someday there'll be a vacancy with greater tasks to do

Will you be ready for the place when it shall fall to you?

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| Tudor..... | \$1004 | \$916 | \$88 |
| Coupe..... | \$ 957 | \$895 | \$62 |

Pontiac Torpedo Six and Plymouth

| | Torpedo 6 | Plymouth De Luxe | Difference |
|------------|--------------|---------------------|------------|
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| Coupe..... | \$ 957 | \$919 | \$38 |

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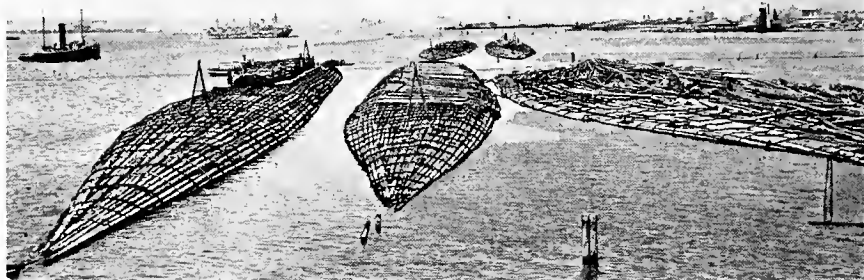
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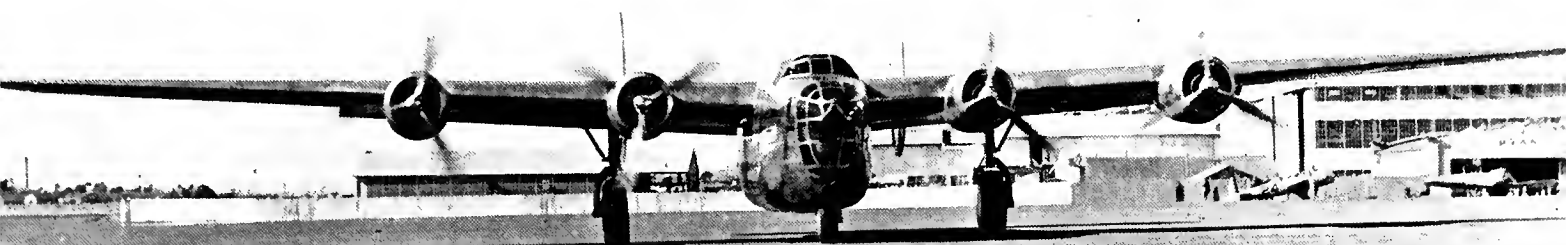
SAN DIEGO HOMES ARE PROTECTED . . . from termites by pressure treated lumber produced in San Diego only by Benson Lumber Co.?

FINANCING SERVICE . . . is available through the loan and escrow department of this 33-year-old company?

• BENSON LUMBER CO. •

• *The Pick of The Trees* •

CONSOLIDATOR



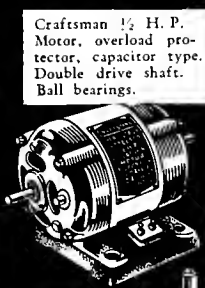
CONSOLIDATED MODEL 32 FOUR-ENGINE BOMBER. (U. S. ARMY XB-24)

APRIL • 1940

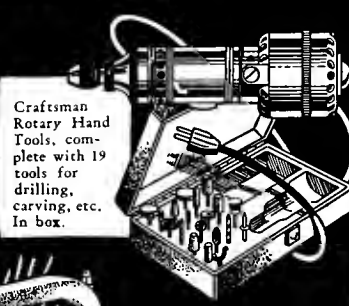
FAMOUS CRAFTSMAN AND COMPANION QUALITIES



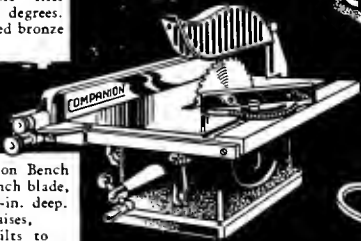
Craftsman Sander, adjustable belt, disc table tilts to 45 degrees. Lubricated bronze bearings.



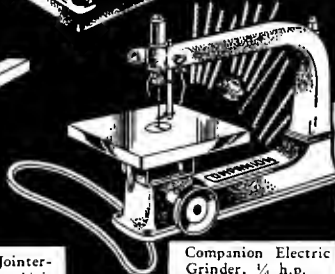
Craftsman 1 1/2 H.P. Motor, overload protector, capacitor type. Double drive shaft. Ball bearings.



Craftsman Rotary Hand Tools, complete with 19 tools for drilling, carving, etc. In box.



Companion Bench Saw, 7-inch blade, cuts 2 1/2-in. deep. Table raises, lower, tilts to 45 degrees.



Companion Jig Saw, 15-in. throat bronze main bearings, perfect balance, 12 blades. Pulley.



Companion Jointer-Planer, 3-blade 4 1/4-in. solid steel cutter h ad. Bronze bear. adjust. table.



Companion Electric Grinder, 1/4 h.p. 3450 R.P.M. ball-bearing motor



Craftsman Lathe, 9-in. swing, 44-in. bed, 30-in. bet. center. Auto lub. bronze bear.



Companion Drill Press, 1/2-in. capacity, 3-jaw chuck. Bronze bearing, ball thrust bearing.

Power TOOLS
\$25 Value!

15⁹⁵

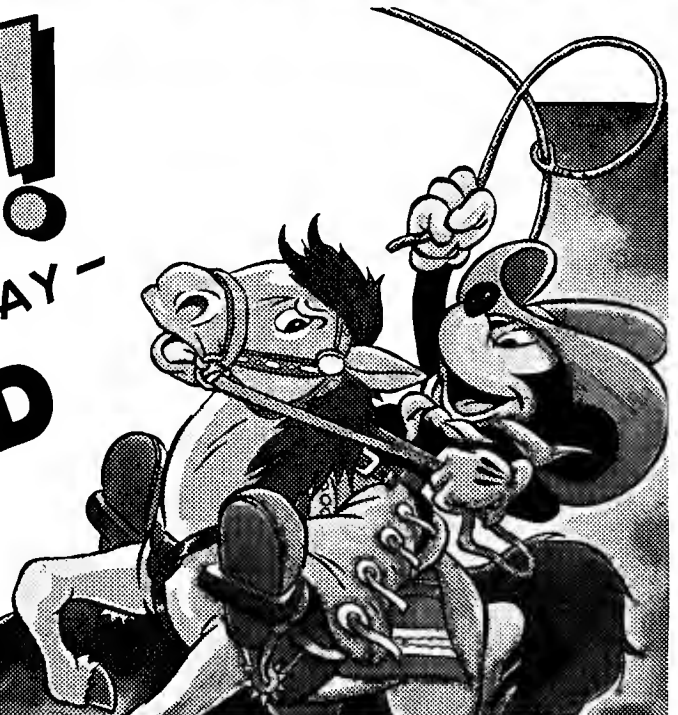
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STANDARD
Unsurpassed

CONSOLIDATOR

Volume 5

April, 1940

Number 4

RESIGNATION

Released March 1, 1940:

Consolidated Aircraft Corporation announces the resignation of H. E. Wehmler as of February 29, 1940. Mr. Wehmler, who was elected a vice-president in December, 1937, was formerly in charge of *Consolidated's* Washington office as its eastern representative.

LIKE SON, LIKE FATHER . . .

Reversing the old saying to read, "Like son, like father" we have the news that Chief Test Pilot "Bill" Wheatley's father, Prof. William A. Wheatley has broken into the realm of aviation: On March 1 he became Director of Schools and College Relations for United Air Lines. His employment is in line with United's program of developing an understanding and favorable acceptance of air transportation in the younger generation.

Said "Bill" Wheatley, Sr., "Air transportation, economically, civically and vocationally is expanding so rapidly it is fast taking its place as one of the nation's most vital industries. Air transportation represents the tempo of the times. It has been said that the current decade will be known as the 'Flying Forties.' This is unquestionably true. We live in a fast-moving world; it is up to us to move fast with it." We welcome Prof. William A. Wheatley to the ranks of aviation.

MUSCLE MEN FUN FEST

By Stan Marcyan

The Hillcrest Barbell Club had its spring picnic at El Monte Park, Sunday, March 17. Eight or nine members are our own *Consolidated* boys: Wally Marcyan, Johnny LaFanne, Ward Hutton, Ray Damon, Bob Gates, Don DeMarcy, Joe Fox, Paul Guerin and a few others are on the list. Ice cream, ham sandwiches and . . . milk were served by their charming hostesses. These huskies downed ten gallons of milk and cried for more. They all seemed to eat like birds . . . dainty little vultures!

TROUBLE

Located throughout the plant, and well known to all are the signs which begin with the statement, "It is not our policy to discharge any person for making an occasional mistake . . ." These signs, as all employees know, apply to work within the plant. These signs are posted to let you know that a spirit of fairness will be employed at all times. Mistakes do happen occasionally in the best of families. Sometimes they can't be avoided.

Less known, however, is the fact that this same spirit of fairness will be used and applied to mistakes or accidents which occur outside of work and may affect your work here. For instance: With several thousand persons on the payroll, it stands to reason that a few of us will occasionally make a mistake and tangle with the law. When such a mistake is made, it quite often happens that posting of bail is necessary, or you spend time in jail. If you find yourself in such a predicament, don't try to cover it up . . . and don't pay just any kind of a bail rate in the belief that it is necessary to "cover up" your trouble to save your job. Such a procedure may saddle an unnecessary burden on you for a number of paydays . . . play safe . . . phone the personnel office and explain . . . people have been in your spot before . . . ask the personnel office for advice. It's a ten to one bet that the personnel department can help you and probably save you both money and worry. Accidents do happen . . . It is not our policy to discharge any person for an occasional mistake . . . and you can reach the personnel office by phone 24 hours a day. And you can think better and do better work if you get the load off your chest.

To the Workers of the Draw Bench Dept.:

I wish to thank all the fellow-workers of my late husband, for their many acts of kindness during his illness, and for the beautiful floral offering sent to the services.

Signed, Mrs. W. F. Freeman.

Airplane Chicken . . . All wings and machinery . . . and no meat.

ALUMINUM ENGINEER

San Diego and *Consolidated Aircraft* were honored on March 7th by a visit from Dr. E. H. Dix, chief metallurgist of the Aluminum Co. of America. On tour of the aviation plants, Dr. Dix devoted a considerable portion of his day here, discussing with plant personnel the problems affecting the working and heat treating of the aluminum alloys, giving first hand information of his intimate knowledge on the specialized subject to which he has devoted a goodly portion of his life. In the evening Dr. Dix was guest of honor at a dinner held at the San Diego Hotel, attended by leading local aircraft officials. At 7:00 p.m. Dr. Dix, before a capacity audience of selected *Consolidated*, Solar and Ryan men, gave a comprehensive illustrated lecture on the aluminum alloys, their properties, heat treatment, corrosion resistance, the effect of cold working, etc. Dr. Dix was introduced to the audience by our production manager, D. M. Carpenter.

Accompanying Dr. Dix on his brief visit here were Frederick C. Pyne, Sales Engineer of Pittsburgh; W. C. Lynch, Los Angeles manager; James Moffatt, district representative, all of the Aluminum Co. of America.

TRAVELIN . . .

Did you ever stop to think what an airplane is called upon to do? Take one of our twin-engined Model 28s for instance:

Its range, which is the distance it can fly without alighting to take on more fuel, is more than 4,000 miles. Now compare this with the performance of your car. Just consider what this would mean if you applied the same figures to a non-stop drive of your automobile. If you could average 20 miles to the gallon, this would mean that your car's gas tank would have to hold 200 gallons instead of around ten. In other words, besides carrying its crew, the model 28 is designed to pick up and carry along with it, about 20 times as much fuel, in proportion, as you require your car to carry!

1939 ANNUAL REPORT

A portion of Major Fleet's message contained in the 1939 Annual Report to the Stockholders of *Consolidated Aircraft Corporation*, is reprinted here because of its interest to all *Consolidators*:

"... In an unprecedentedly short period the company designed, constructed, and tested a prototype (XB-24) of a new four-engine long-range bomber of unexcelled performance for the United States Army, and obtained orders for more than \$12,000,000 of these airplanes, thus marking the company's re-entry into the land-plane field and resumption of contractual relations with a most valued customer. As a private venture, the company completed and tested a new twin-engine flying boat (Model 31) adaptable for operation either as a long-range patrol bomber or as a 28-passenger transoceanic commercial airliner. This flying boat has two decks with a large flight control room and eight other compartments, and uses the same wing and general type of construction as the Army bomber. It is equipped with two 2000-horsepower engines mounting 16-foot full-feathering propellers. The engines and propellers are the largest ever manufactured in this country. Another product developed by the company during the year is a retractable tricycle landing gear for the PBY flying boat. This development permits operation of the PBY as an amphibian without materially affecting its excellent performance, and increases the utility and sales appeal of this airplane (Model 28-5A).

During the past few months, the com-

pany received contracts from foreign customers for a released version of the PBY.

At this date, our back-log of business is about \$49,000,000 which will keep us busy until 1941 midsummer; our employees number approximately 4,300, we are adding about 100 men a week, and are operating three shifts. Our products are giving excellent satisfaction and our new designs are receiving the careful consideration of our customers. Since organization in 1923, we have constructed more than three times as many airplanes with a wing span of 100 feet or over, as all other American airplane manufacturers combined, and are the largest builders of flying boats in the world.

We announce with regret the resignation of Director J. M. Gwinn, Jr., who has entered the employ of another airplane manufacturing company.

We record with extreme sorrow the death of our friend and esteemed Director, George M. Pynchon, Jr."

Respectfully,

R. H. Fleet, President.

San Diego, California

6 March 1940

PLASTER SPLASHES

We are going to miss the Dutchman, with his "Hi diddle diddle Sonny Boy." Johnny Debs will miss him more than any of us. He won't get any more candy.

We are glad to welcome some new men to the shop—Charles Miller, from Lockheed; Emory Seward, from La Junta, Colorado, and Glenn Burns, who was transferred from Wing.

SO. CALIFORNIA FLYERS NEWS

By Al Griffith

We are happy to announce some new solo pilots this month: They are Isabelle McCrae, Ray Dinsen, of the D. H. department; Tommy Saunders of the D. B. department, Bob Sprague of the D. H. department. Also some new members have been added: Chuck Green of T. B. department. Sid Murphy of Ryan Co. Art La Barre of P. R. department. Jack Evans of the San Diego Trust and Savings Bank, and Kae Griffith.

Pat Dowling of P. R. and Fred Robertson are checked out now on cross winds and Ray Dinsen is also checked out and flying regular.

We have moved our ship to Piek's Airport where we do our flight training. Anyone is welcome to come out and see what we are doing. Among our field activities we held a spotlanding contest, flying to about 600 feet cutting the gun making a 180° turn in for a landing over the first and before the last marker. Bob Sprague, one of our newest solo pilots, was the winner of this contest. (Bob Bailey said he was robbed.)

The proceeds from the pool in the contest were used for a party at Al Griffith's home. Of course, Kae had a little to say about that.

We now have a swell new radio that will be installed in the ship soon, which was built by none other than our own Ken Smith and his buddy, Billy Luffe, who presented it to the club. A word of thanks goes to Chuck Taylor also for his contribution of technical advice.

The club has a few memberships open to men and women who want to learn to fly or build up their time inexpensively. We plan on night flying and blind flying in the near future. For information contact any member on the field on Saturday or Sunday.

First Pilot: "It makes me cross to be told I haven't enough altitude."

Second Pilot: "It makes me soar, too."—Bee-Hive.

Whitney's every time for Better Values!

WINGS for your budget!

Make a brilliant takeoff and a safe landing when you fly over the mountainous regions of the family budget! Try WHITNEY'S first. Savings on all family and household needs in 53 complete departments!



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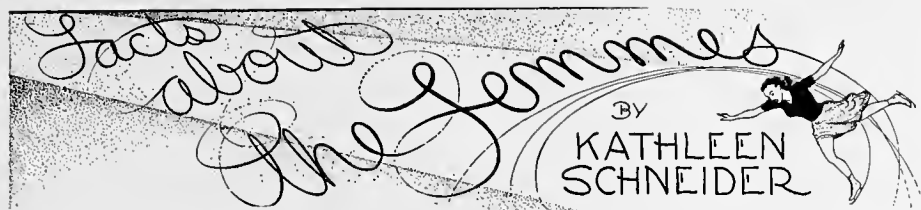
Special Private Lesson Rates
in Ballroom Dancing
6 PRIVATE \$5.00 LESSONS

Consair Club Class Lessons, including one hour lesson and 1½ hour Practice Dancing only 50c. Wed., 8 to 10:30 P.M.
Classes forming for Children and Adults in All Types of Dancing. Rates in Reach of All

HEMPHILL'S

SCHOOL OF THE DANCE

1039 7th Ave. E. 5750 & 1740 Upas. J. 9458



AND still they come. Latest feminine additions: Maxine Bennett, Glada Wright, Margaret Stafford, Evelyn Parkins, and Ruth Sears.

Having a new nephew arrive when the *Consolidator* news is due is hard on the column. Try scouting around for news when you're debating whether a new member of the family looks like Clark Gable (without his mustache) or Mickey Rooney. Said nephew tipped the scales at 6 lbs. 4 oz. He answers to the name of Michael Leroy Harbert and made his appearance on March 12.

By this time, Lucille Fisher and Lorine Mounce will be streamlined. They didn't worry themselves thin, it's their nine-day diet that did the trick (guaranteed to take off ten pounds in nine days). Lucille has her eye on Ann Howard's red velvet dress, size 12, and Lorine is seriously looking over Mary Nugent's wardrobe.

Evelyn Kells took a plane ride the other noon and her stomach is still looping the loops. Looking at the ocean upside down would make anything loop.

Hope that by the time this is read Marcella will again be contributing to the lunchroom conversation. We surely miss her. Brenda Fottrell is another one on our sick list, and she'll have an appendicitis operation to discuss when she returns.

Life is just one darned thing after another; love is just two darned fools after each other.

And there's the Dumb Dora who thinks a man's untold wealth is that which he doesn't reveal to the income tax collector.

We now find that the little man who wasn't there eats "ghost toasties" for breakfast and has the hole in the doughnut for dessert.

What did the little toe say to the big toe? "Don't look now, but I think there's a heel following us."

What did one eye say to the other? "I think there's something between us that smells."

What did one hat on the shelf say to the other? "You stay here. I'm going on ahead."

What did the ceiling say to the wall? "I'll meet you at the corner."

Confucius say: Puppy love is the start of a dog's life.

Aunt Kathleen.

MUSIC MAKERS "IN THE GROOVE..."

Confucius say: "Man play music, make everybody happy."

More than two dozen *Consolidated* employees believe this wise old Chinese saying, so you can be expecting anything from Beethoven to Irving Berlin some of these days. Yes, sir—and can they swing it, too? AND HOW!

The gang has been rehearsing at Thearle Music company, and reports are coming in that the boys are really "in the groove." Of course the expression "the more the merrier" holds true even with such a fine ensemble as our orchestra, so why don't all of you who play any instrument, whether violin, drums, accordion, or anything else call the Personnel Office and line up with a really worth-while and enjoyable group?

E. G. Borgens.

Born to Mr. and Mrs. Robert A. Bussey, at just 12:30 a.m. on February 21st, little Miss Elizabeth Ann Bussy . . . weighing 6 pounds, 11 oz. Congratulations.

Mr. and Mrs. Lon F. Tubbs, Jr., proudly announce the birth of a boy, weight 8 lbs. 6 oz., at 7 a.m. on March 15. Congratulations.



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30% TO 65% OFF
9X12 IMPORTED RUGS \$16.95

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SAN DIEGO

• EYES EXAMINED
• GLASSES FITTED
• GLASSES REPAIRED

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HORSE-PLAY

"Horse-play" is defined as rude boisterous play. The results are accidents, loss of efficiency, pain and loss of income for the worker.

Recognizing the importance of the prevention of horse-play on the job, the compensation laws of the State of California fix a penalty on the results of horse-play. The penalty is that an injury occurring as a result of this kind of accident is outside the scope of employment and is therefore non-compensable.

Industry recognizes the seriousness of this form of sport in that the fellow who habitually practices horse-play is rated as a poor employee, a problem, and a hazard to the job. In fact, he is an undesirable; and he will find that as time goes on, if he persists in this type of fun, he will have no place in the present-day industrial picture. It would seem that this is a heavy price to pay to gratify the desire to get the laugh on a fellow employee, to get his "goat", or to see him suffer in silence, or, as sometimes happens, to see him blow up and, in all probability, injure a fellow employee not connected with the horse-play.

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THE CONSOLIDATOR



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BENCH NEWS . . .

Jack Fleck and Cap are two big shots now . . . They grab their rifles on week-ends for target practice.

Chester Dudzinski has been doing a lot of worrying over a certain pink paper a man on a motorcycle gave him the other night. No. 2930.

Hobbies? Some of the boys and their hobbies: Dave Wilkinson, Bicycle repairing; Benny Kiegle, kite flying; Teddy Edwards, staying home; Owen Harder, debates with the police; Albert Hagel, wine inspection; Al Opolski, repairing the ticks.

Sh-sh! This is a secret: Carl Sherrer has set the date for his trip to the altar. Cigars and beer soon, boys.

Albert Hagel and Herman Dietzel are getting the wine barrels ready for the coming grape harvest.

Frank Bailey has quit prospecting due to the fact he has not been able to catch that Doodle bug.

SHEET NEWS

Swede Nelson has opened a malt shop at Mission Beach. Lots of luck. . . . The boys will be glad to hear that Harold Ferguson has bought a set of tools. . . . Why does Walt Borg have that satisfied look. Maybe it's his new hide-away? . . . Tex Hatch is planning on selling his Ford to the Navy for laying down smoke screens. . . . It looks like wedding bells for Bill Sherriff. . . . the real thing this time. . . . Red Kimble and William Wrigley have signed Dizzy Dean, thanks to Spearmint.

News Flash: It's a boy at the John Severson's. How about cigars, John? Congratulations. . . . (Hand in your Sheet Dept. news to Mike Allianneh or yours truly, H. B. Millman.)

FLY Over the Highways
On a 1940
HARLEY-DAVIDSON



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929 India Street San Diego

Write for Catalog

Open to 8 p. m.

Terms

WING KEYHOLE

By Browne

We hear Frank Heidemann is coming on nights to take charge of Army Flats. Frank is a very capable man and has been climbing towards the top ever since he entered *Consair* in 1936.

Gil Lance is sporting a new Oldsmobile. We hear the price of goat's milk has gone up. Has this any bearing on the purchase of the new car, Gil?

If Jack Maier, Wing Inspection, doesn't stop bumping his head on Wing center sections, we will have to raise them higher off the floor, so that Jack can pass under with ease.

We are sorry to learn Ed Brendza was rushed to Mercy Hospital for an appendicitis operation.

Scotty and Vic, Wing Inspection, are certainly stepping around these days, lining their inspectors to go over the top when the big rush comes. Good work, gentlemen.

Joe Saunders is back on the Leading Edge gang again after spending several months chasing tools. Welcome back.

Limy is still in love with the horses. Honey Chile recently paid Limy 41 to 2. Sounds like a good bet.

Steve Smyczyosky, Jr., has finally received his new set of Bar Bells from Philadelphia. He worked out for four hours the first night and practically exhausted himself for the next two days.

Steve Smith, when told a Confucius saying recently remarked, "You know what Mohammed say: Confucius talk too damn much."

FLOWERS . . .

Next time you take an auto trip to the mountains and see a forlorn person sitting by the road with his head in his hands, be prepared for a car-sick young man who couldn't take the winding turns in the road. On a recent visit to Palomar Mountains, Johnny Flowers had Jack Gott stop the car four times on the way up and as many times coming back. During said stops Johnny found time to restore his sudden green complexion back to its natural color. No. 649.

We are sorry to note here the passing of our friend Wm. F. Freeman of the Draw Bench Dept. who died on Feb. 25th.



— with Bud Landis

They say there's nothing new under the sun—except maybe a couple of freckles.

But yet the stork keeps on flying the regular routes with a strong wind to his back.



That famous old birth bird has just delivered a pair of twins to brighten our lives.

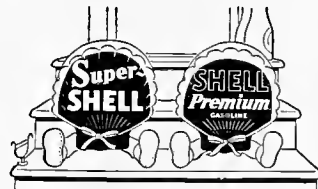
The new arrivals are really a couple of gasolines which, even at such a tender age, are turning out to be child prodigies.

One's named Super-Shell—a chip off the old block with modern improvements.

The other's called Shell Premium.

Shell Premium contains Alkylate—which has nothing to do with the stuff that was so prevalent during the 18th Amusement.

Alkylation is the most startling development in refining history. It made possible super-octane gasolines.



Your neighborhood Shell Dealer will gladly introduce you to the new and lusty youngsters.

You'll find them two good gasolines made even better—and the extra performance costs you no more.

Mmm!

Try the most
delicious, juicy

Roast Beef

in town

30¢

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NOW!

Every NOW and then something MUST BE DONE to move out from under a load—NOW is the time with HILTON MOTOR CO.—NOW is the time for YOU to cash in. In every ad in the paper you find a reason for a bargain and we assume they are—HOWEVER WE can make this statement without fear of contradiction: NONE have been more carefully checked and reconditioned—ALL of our reconditioned cars MUST PASS 58 inspections before we offer them for sale—So NOW we find we have many models on hand of the latest makes that we MUST dispose of—to do this, one thing we are sure of—PRICE WILL MOVE THEM—So NOW we offer you both price and condition.

Below are listed a few of our many bargains that MUST BE SOLD:

NOW

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| 39 Zephyr Sedan—Radio..... | \$1195.00 |
| 39 Ford Deluxe Sedan—Radio..... | \$695.00 |
| 38 Ford Deluxe Sedan—Radio..... | \$595.00 |
| 37 Ford Deluxe Sedan—Radio..... | \$449.00 |
| 36 Ford Deluxe Sedan—Radio..... | \$390.00 |
| 39 Ford Deluxe Coupe—Radio..... | \$679.00 |
| 39 Ford 85 Coupe..... | \$597.00 |
| 39 Ford 60 Coupe—6,000 miles..... | \$599.00 |
| 38 Ford Deluxe Coupe—Radio..... | \$539.00 |
| 37 Ford Deluxe Coupe—Radio..... | \$439.00 |
| 36 Ford Deluxe Coupe—Radio..... | \$329.00 |
| 35 Ford Deluxe Coupe..... | \$225.00 |
| 39 Ford 85 Tudor—Radio..... | \$595.00 |
| 38 Ford Deluxe Tudor—Radio..... | \$549.00 |
| 37 Ford Deluxe Tudor—Trunk..... | \$419.00 |
| 38 Ford 60 Tudor—Radio..... | \$497.00 |
| 37 Ford 60 Tudor..... | \$347.00 |
| 36 Ford Tudor (New Paint)..... | \$297.00 |
| 35 Ford Tudor (New Paint)..... | \$199.00 |

HOUSE CARS

| | |
|-------------------|------------------------|
| 40 Ford Cobriolet | 40 Ford 85 Bus. Coupe. |
| 40 Mercury Sedan | 40 Ford Deluxe Sedan. |
| At Big Discount. | |

OTHER MAKES

| | |
|--------------------------------|----------|
| 39 Plymouth Deluxe Coupe..... | \$597.00 |
| 37 Plymouth Deluxe Coupe..... | \$449.00 |
| 38 Plymouth Sedan..... | \$539.00 |
| 35 Packard Sedan..... | \$375.00 |
| 38 Pontiac 6 Coupe..... | \$597.00 |
| 37 La Salle Sedan..... | \$645.00 |
| 37 La Salle Coupe..... | \$567.00 |
| 38 Chevrolet Deluxe Sedan..... | \$579.00 |
| 36 Chevrolet Deluxe Tudor..... | \$337.00 |
| 35 Chevrolet Coupe..... | \$217.00 |

STATION WAGONS

| | |
|---|----------|
| 39 Ford Deluxe, two to choose from, Radio..... | \$895.00 |
| 38 Ford Deluxe, two..... | \$695.00 |
| 37 Ford Deluxe..... | \$545.00 |
| 36 Ford Deluxe..... | \$425.00 |

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SOARING AND GLIDING

By Jerry Litell

At the annual meet of the Associated Glider Clubs, the public saw soaring the first day. The wind was the usual light westerly, and gliding the second day, when the wind was "conspicuous by its absence." Reports indicate, however, that the blasé San Diegans who have become accustomed to the sight of the same two or three sailplanes cruising back and forth in apparent monotony, enjoyed watching the many take-offs and landings and the opportunity of inspecting the latest types of American sailplanes at close range.

Highlights of the meet: The amazing performance of Hank Stieglemayer, who soared a Baby Albatross for an extra fifteen minutes, mostly below the airport and, unable to land on the field, ducked into a canyon, slid up the side of it and lit like a bird in the sagebrush near the top without scratching the ship!

On hand were beautifully finished Woolcott secondary glider with sailplane performance, the new taper wing Briegleb (showing what Steve Kesches will be flying in a few months)—the Bowlus two-place, (made by simply inserting an extra section in the middle of a Baby Albatross nacelle to accommodate the second seat and control) and the high performance craft, the gull winged "Lanonia" owned by John Robinson which drew much attention, though it has been seen soaring here in San Diego for the last eight months. George Palmer, formerly of *Consolidated*, showed his newly finished



Top: A few of the spectators at the Glider Soaring meet. Center: At the foot of the cliffs a few of the motorless planes landed safely, which is an alternative when the wind "lets you down." Below: Dick Essery and Harvey Stephens. Essery is president of the local club; Stephens prominent in the air of sailplaning, and a motion picture actor. Pictures by Victor Korski, Hull Dept.

2-place sailplane which created much comment by its smooth 1/8" plywood covering for both its highly tapered wings and sharp-nosed fuselage. And then there was the Super-Albatross from San Fernando,

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seen for the first time in San Diego, an ultra streamlined, perfectly symmetrical midwing job with the characteristic boom sail also lowered. Woody Brown is to fly it at the Arvin meet.

Of visitors, we mention:

Major Fleet, who spoke over the P.A. system—"I think that soaring is the most wonderful sport, and I cannot understand why, with the facilities at hand, more young people do not take active part . . . will be up here myself someday and get an hour of soaring." Leo Bourdon, Welding Dept. chief, enjoyed a short soaring flight the first day of the meet. Mr. Fowler, inventor of high lift devices for airplanes, showed interest in the "spoilers," low lift gadgets for sailplanes. Phil Koenig, Tool Dept. head, took a "movie" from the rear seat of the Association's "Grunau." And there was test pilot Bill Wheatley, and lots of others. It looked like a *Consolidated* picnic.

So, the meet was a success. An estimated 2000 saw 15 modern American sailplanes perform. Our guests from Los Angeles enjoyed our facilities and the meet started our own soaring season off with a bang. Writing here in the clubhouse, I can see five planes out at the ridge, and already more than a hundred spectators are lining the field. Come out and enjoy a Sunday afternoon at our glider port. You'll like it!

ROD AND REEL CLUB

New officers for 1940 were elected by the *Consolidated* Rod and Reel Club at their last meeting: Ronnie Miller, Pres.; Roy Coykendall, V.-P.; Johnny Hopman, Treas.; Milton Hangen, Sec., and L. McGiffen, Sgt.

Russ Kern and Brad Bradshaw were named to handle publicity. Every employee of *Consolidated* is eligible. Complete data concerning the organization can be had from Connie Seaderquist, Bert Naseef, Henry Galem, Army Armstrong, Chris Englehart, Bert Freakley, Walter Beyer, Otto Peterhansel, Glenn Hotchkiss,

Jimmy Wilkinson, Jack Thompson, Carl Gilchrist and Charles Hibert.

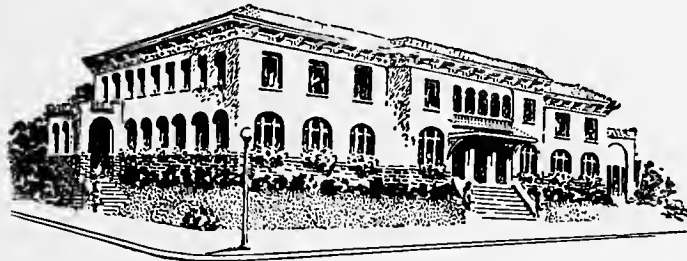
Confucius' brother say Confucius talk too damn much.—Bee-Hive.

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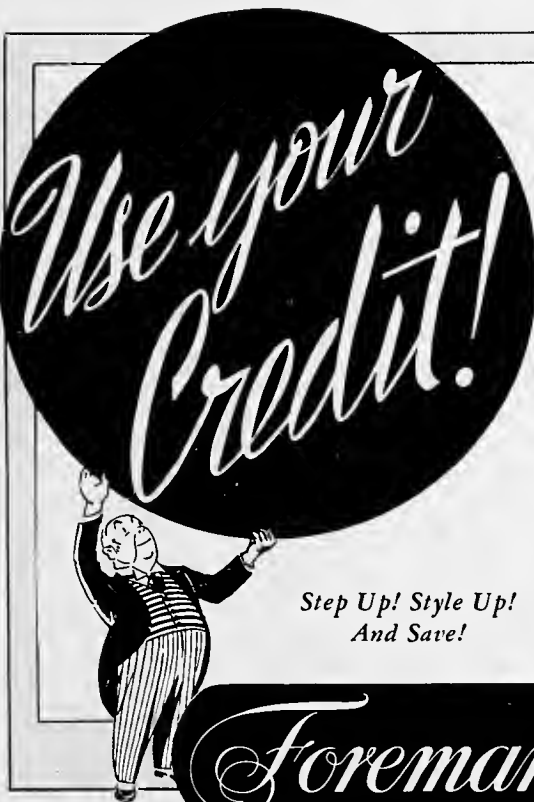
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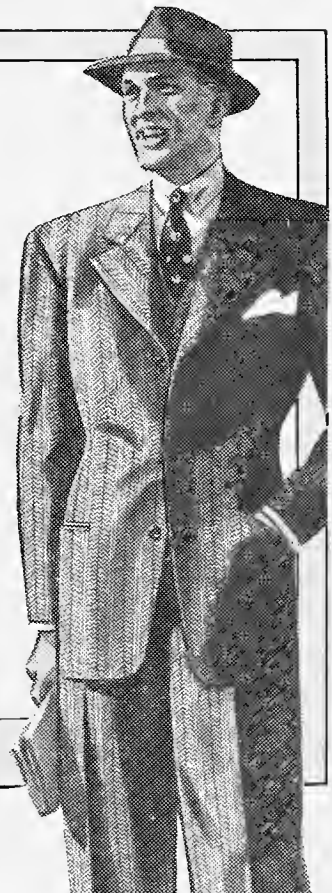
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THE HULL TRUTH

By "Chuck" Farrell

MR. and Mrs. M. W. (Tiny) Lanthorne wish to announce the arrival, on March 5th at Mercy Hospital, of a baby girl, Florence Elizabeth. Weight, 8 lbs. 14 oz. Mother and daughter are now at home and doing very nicely. "Tiny" is bearing up very well under the strain of back-slapping and handshaking.

"Dapper Dan" Clemson, of Production, has filed his income tax report. According to his figures, Uncle Sam owes him \$94.12. He offers, very generously, 10% to any one who can do the collecting.

A recent magazine article states some glaciers move only a few feet a year. If you ever hear of a match race between Shelby Best and a glacier, put your money on the glacier.

Bill Hedgpath, Night Inspection, has

joined the ranks of tennis fans. Bill plays a right nice game too—a fact he proved to our satisfaction very recently on Municipal courts. Efforts are under way to start a novice tournament among the Night Hull gang. Lou Fischer will give you all the details. Lou is also acting as coach to those who wish help with their backhand. (Who doesn't?)

Don Davis is all broken out with new car rash. He purchased a car Saturday p.m., and by Sunday noon had 250 miles on the speedometer. Don swears he did not even take time out to eat. When the boy finds something interesting enough to take his mind off of eating, it must be good—at least that is the opinion of Davis, Sr., of Lofting. (He should know.)

Bill Box is bowling with Hull No. 2 team. And he's really good, too, running a 3 game average of 146 for his first time in competition. That accounts for the bright smile on the face of Jim Stevens—that, and the fact that his team is way out front in the Night league.

Our newlyweds, Mr. and Mrs. Walt Evans, are at home at 3115 Thorn St. Walt was ill for a week, but now invites his friends to "just drop in any time."

That hair cut of Al Leonard's was an accident. It seems Al went to sleep on his front lawn. When his neighbor came over to get the lawn mower Al borrowed last summer—well, he took advantage of a golden opportunity, that's all. At least that is the story as "Scavenger" Galley tells it. And then, Al has the hair cut to back up the story.

The question is: Was Professor Roese giving an imitation of Whistler the artist, or the Green Hornet, radio hero? His painting of the floor, walls and roof, not to mention several tool kits and lunch boxes, was very good, but his make-up as Green Hornet was perfect. Roese was working on a paint-mixing device when something went wrong, and a quart or two of green primer was sprayed over several square yards of Hull department and Roese. When the quitting bell rang, he was getting a gasoline shampoo and rub-down.

BOWLING NEWS

By H. K. Clay

The Loft No. 1 quint of keggers emerged victorious of the Consair Engineers' bowling league which wound up at the Sunshine Alleys recently. The league began activities last October and proved to be one of the best industrial circuits ever seen in action at the Sunshine. The championship team is made up of Tom Coughlin, Capt., Herb Sharp, Frank Learman, Bill Summers and Phil Taber.

Experimentalists have a sure-fire assortment of pin-biffers in Eddie Lang, Ward Levere, Otto Peterhansel, Walt Sherwood and Russ Wright.

The race between several leading Consair keggers as to top honors in the March 1st average list ended with Hal Leppart leading the field by the slimmest of margins. Hal, who hails from South Dakota where he enjoyed first hand instruction under the tutelage of none other than the famous Jimmy Smith, is anchor-man for the Production No. 2 team. He had a total of 11,963 pins whereas Mike Brooks of Hull No. 1 came in under the wire for a photo finish with an average of 180 having a total of 11,941 pins for the 66 games. Other leading lights of Consair keggers are George Galley 170, Henry Myers 177, Frank Cary 172, Walt Sherwood 172, Irving Craig 170 and T. J. Coughlin 175.

Bill Liddle who has a berth on Production No. 1 team set up an all-time Consair league record for high individual game at the Sunshine. In the match between his team and the Sheet Metal aggregation March 15, Liddle found the grooves to the lullaby of 275. He had four strikes, then a spare and six more strikes in a row. Roy Coykendall who bowls with Production No. 2 enjoyed the high record this season prior to the Liddle feat by tallying a sizzling alley-burner of 266. The high series mark is held by Bob Zimmerlee, a former Consair kegler who pegged three games for a total of 758.

"My days of puny scores are through; I'll show those birds a thing or two. I'll leave 'em trailing in my dust, I'll leave the bottom place—or bust."

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SPORT SHORTS

By Matt Wielopolski

Lack of sustained interest on the part of the night shift employees, coupled with the fact that the basketball championship was still in pursuit by George Wire's Hull and Craig Clark's Production teams, caused abandoning the idea of having a night badminton tourney.

However, the day shift boys have made up for what the night fellows lacked. The enthusiasm they have shown, the plays they have displayed, plus the sportsmanship shown brought the best players to the finals. With Johnny Lockwood vs. Mendez and Billings vs. Henninger, there will be plenty of action. Due to the fact that Mendez is the favorite, Lockwood will have to fight from the under dog's handicap to retain the single's championship for another year. While interest is looked on these boys, we have our money on Terry, Billings, Henninger, and a few other fine players in the dark horse division.

George Wire's Howling Hull Hawks out-basket-balled Craig Clark's Prim Point Producers (Production) in two previous games. Then in unbelievable fashion, the baskets were upset and the highest points ended in Production's favor on two following occasions. On the 13th of March, Craig led his boys onto the court for the fifth and final tussle for the so-called championship of the night league against George's Gladiators. Although the Hull team led at the end of each quarter, it took plucky Speed's accurate eye, shifty pivoting, fine pass work and noticeable team work to end on top of the scoring spree for both the team and game.

According to Mr. (Bill) Gilchrist, there will be a play-off between the day and night shift league leaders (Hull and Production teams respectively) for the All-Consolidated championship either March 30 or April 6.

The Machine Shop quintet set a new record by rolling a total of 2,519 pins against Lloyd Bender's Production No. 1 team. The Bender bowled consistently of 155 and Rasmussen hit his stride for a 214 fame. Shelby Best fell down a bit, causing

Paul Gaughn to go on with the wind into the gutter.

Thanks to Matt Wielopolski's streak of daffy luck when he totaled 534 from games of 230, 165 and 159; Al Wang helped with his constant consistence of 177, 178 and 180; Vic Racko averaged 141 to do his bit, and "Lefty" Glover helping with 444 pins. But it took Captain Miller's grand total of 572 to help Machine Shop team with games of 809, 844 and 866. Here's a warning to other teams. Two of Miller's money men were absent due to illness.

George Wire led the high singles bowlers with a 235 one week. Closely following were Miller, 232; Wielopolski, 230; Goss,

226; Rasmussen, 214; Miller (again), 212, and Kent, 210.

We believe that anyone who is healthy and happy, with luck and patience, can bowl that exclusive and elusive 300 (perfect bowling score.)

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Officers, San Diego Flying Club. Left to right, seated: Mrs. H. R. MacDonald, Mrs. T. B. Butterfield. Standing: H. R. MacDonald, Sec'y.; F. Young, Dinner Comm.; C. W. Hunneman; Corp. Treas.; A. O. Anderson, Social Director; T. P. Butterfield, Pres.; T. Truman, Operations Treas.; H. Culver, Flight Instructor; W. Travis, Operations Mgr.; R. Goodyear, Vice-Pres.; and H. Leboffe, Advisory Board Member.

S. D. FLYING CLUB

By A. H. Davidson

The San Diego Flying Club celebrated its fourth anniversary by having a dinner dance in the Sun Room of the San Diego Hotel on Saturday, March 16.

President Butterfield introduced Mr. Bert Naseef, former club instructor and original organizer, who commented on the rapid growth and its fine record of safety through four years of operation.

Mr. Carl Hunneman, Corporate Treasurer, gave a brief history of the club's activities. The club began activities with 20 members and one Taylor Cub airplane, operating from Linda Vista Airport on Camp Kearny Mesa. Later, the club moved its base of operations to Lindbergh Field. About this time, the members purchased a Porterfield. In order to do this, 20 more memberships were sold, swelling the club to 40 members. After operating from Lindbergh Field for about a year, the club moved to its present location at Grande Vista Airport, located 3 miles south of Chula Vista on U. S. Highway 101. Here the club operated its own field, having 3 planes, hangars, and house.

President Butterfield announced that the deal had been closed for the purchase of a new Piper "Cub" powered by a 50 H. P. Continental motor, equipped with hydraulic brakes, and dual ignition. "Delivery is expected in 3 weeks."

Two new members were next voted into the club. Mr. Jenkins, and Mr. Higdon.

Then five members of North Parks' Boys band rendered three musical numbers, and they really could "give out."

Mr. Harry Culver, Club flying instructor, introduced Mr. Archie Atherton who gave a talk on parachutes, and opened a 'chute and explained parts and types of 'chutes. Movies were then shown describing various types of 'chutes, methods of using, and testing.

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SAFEWAY

The meeting adjourned then for dancing. "Wild Bill" Travis, oldest member of the club, really knows his dancing, and doesn't do bad at yodeling. Harry Culver, Carl Hunneman, Bud Seltenreich, Tommy Butterfield, etc., were on hand to help closeup in the "wee small hours."

Tommy Palsulich soloed on March 9, and Jack Hoppers has his private Pilot's License now, having taken his tests the first of the month. He is the last member of the club who will take his test for private in the 40 h.p. Cub, as all future tests will be taken in the 50 h.p. Cub. Jack soloed in the 2S Rearwin also.

And so the distracted dispatcher said, "You don't have to be crazy in this business, but it helps like . . .!"

Mention the *Consolidator* . . . it identifies you.

HULLABALOO

By Al Leonard

THE Hull department is proud of its championship basketball team. The team has just completed a record breaking season in the *Consolidated* Shop league by going through the entire season without a defeat. To make the record more impressive, Hull has won the Shop league three years in a row. The players on the Hull team are Tommy Johnson, John Kunkle, Sam Shepard, Bob White, Norm Heckerth, Ellis Bell, Speed Gilmore, Scotty Rutherford and "last but not least," Loob. The team was managed by Freddie Grossher.

The "Sudden Death" Hull Golf tournaments are in full swing again. Jack Santone burned up the course to win a few weeks ago and the last tournament turned out a couple of co-winners when Jimmy Le Clare and Mike Brooks tied to take the honors. "Scotty" Doig, the demon handicapper, has all the boys scared to death of winning the tournament because of the way he cuts the new champ's handicap.

The only casualty of the last match was "Iron Man" Landy, who got himself wet under one of the sprinkling systems and was laid up for a week.

Ray Horton, lead man of the South Hull "Balcony Boys" has a reputation for being very particular about edge distance. One of his boys a short while ago drilled a hole in his finger. Ray, who was nearby, came over to the unfortunate young man and asked, "What did you do, drill a hole in your finger?"

"Yes," snapped the victim, "but don't worry about it. I've got the proper edge distance!"

George "Scavenger" Galley was highly embarrassed the other day. After bragging for three days about his new car he finally got a group of men to go over and look at it and admire its powerful motor. Was George's face red when he couldn't get the car started!

The boys in Hull were puzzled last week when Norm Wire wore his "church goin'" clothes to work. The mystery was cleared up however when all the boys were sent out to have their pictures taken.

Professor "Yap Yap" Hopman amused a group of Hull folks at a party recently by giving a wonderful exhibition of fish-swallowing. He insisted that the fish were anchovies but any Rod and Reel Club member could tell at a glance that the fish were recently beheaded yellowtail bait. One of Johnny's favorite tricks is lying on his side and clapping his hands while catching fish in his mouth from a distance of twenty-five feet.

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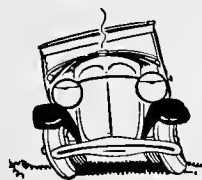
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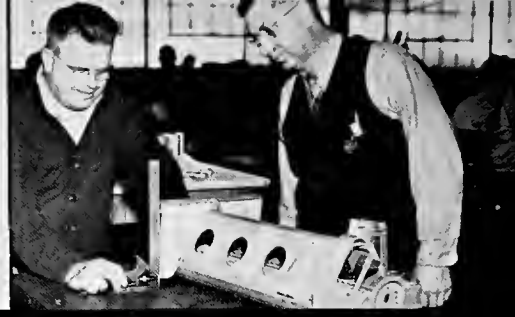
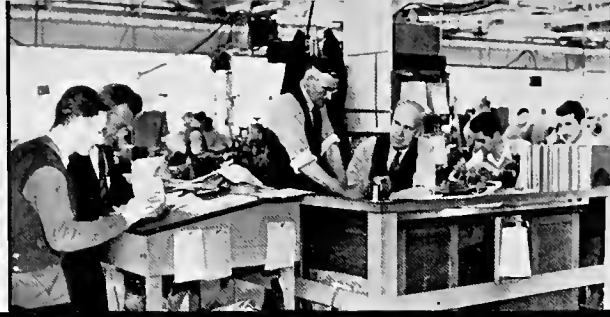
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1. Sub-assemblies of every nature are assembled in the Bench department. It is in this department that trained mechanics are called upon to draw from their vast store of experience and training to assemble the necessary units that are afterwards used in the final assembly of the airplane itself. Pictured above, Bill Waite, Leadman in charge of Riveted assemblies, is checking a Tail Rib assembly similar to the one that E. F. Miller and F. A. Scrivani are riveting and drilling.

2. The Operations Headquarters for the Bench Department centers around the people you see pictured above. At the left are Tommy Jones and Ted Anderson of Planning. It is their duty to see that enough detail parts are on hand so that production schedules are met. Next in line in the picture is Leadman Teddy Edwards who is discussing an assembly with Bench Foreman George Young. At the right are Bruce Pohl and Al Rodriguez, department clerks. So close are requirement and completion dates followed that seldom are they even considered outside the department. The parts are just completed on time.

3. Extreme accuracy of assemblies is necessary to guarantee interchangeability of units at final assembly of the airplane. One of the major assembly jobs of the Bench Department is the fabricating of the various details which make up the Control Column and other units of the control system. John Bailey has just completed inspection of an assembly he has completed while Leadman Henry Doerr checks the operation. Both men are veterans of many years in aircraft construction and have worked on parts of every airplane Consolidated has built to date.

BEHIND THE

"EVERY man to his own last" works out in fine shape as far as most manufacturing units at Consolidated are concerned, but in the case of the Metal Bench department, it is of importance that a large number of men are organized into a group which can handle many, and in some cases all the "lasts" in the book.

It is in this busy department, headed by George Young, that some of the most intricate of assemblies are completed. Here one sees sheet metal details, machined items, welded units, and riveted sub-assemblies brought together and worked up into large assemblies that make up the furnishings, handling equipment, armament, or operating devices which will control the flight of the airplane itself.

The broad scope of work performed necessitates a trained personnel that is able to rapidly interpret Blue Prints, be able to accurately handle hand and machine tools, and possess a degree of skill that will be reflected in the smooth, and accurate finish of the work being produced.

Today's record-breaking aircraft depend on an unbelievable amount of equipment that not only is incorporated in the assembled airplane to permit its control in flight or operating purposes, but also that used to handle the plane on the ground or, if necessity demands, permit the repair and adjustment of the craft itself when it might be far from its home base.

In the case of a military craft armament is of utmost importance and the old mil-

itary axiom which states that the winner is the one that reaches the objective "first-est with the mostest" holds true in the air, as well as on the ground. Modern airplanes are able to protect themselves with the equipment they carry and increased speeds attainable with present design coupled with new efficient power units remove most of the handicaps of slower speed. The plane's capacity to gain an objective depends upon its ability to carry an exceedingly large load of "persuasion," and many details of this phase of plane building are the work of the "Bench."

Seats for the pilots and observers present another large amount of work in the department. They are designed to be adjustable for several positions and must be in shape to permit easy adjustment during flight.

Getting large flying boats in or out of the water looks like an easy task but it is made to look easy because of the cleverly designed and constructed beaching gear equipment that permits the rapid change. A good many "Bench Hands" are occupied at assembling the large units which go into their making.

The formed sheet metal details that make up the light-weight, compact welded parts are made in the department and turned over to the Weld Department for weld assembly, then returned to the Bench for straightening and further machine or hand finishing operations.

The swagging of control cable terminals

is another large order handed to the Bench. This method of assembly of these Stainless-Steel details presented many manufacturing problems that were new to our industry but which were soon worked out. Now their assembly along with the special processing applied to the cable itself is so uniform in operation that their completion time never varies.

The Bench is often called upon to perform overflow work when some other department's production demands exceed its capacity to meet schedules, or requirements are such that work distribution will increase production efficiency. One such case that has become a regular Bench function is the matter of producing the assembled Trailing Edge Ribs and other sub-assemblies used in the construction of the wings themselves.

To increase efficiency, Machine Tools have been added where required. The Department boasts of its own metal cutting shears, punch presses, band saw, arbor presses and drilling machines of various capacities. This permits the completion of many jobs within the department itself and eliminates much handling of material.

To operate an organization of this size, which alone is larger than most local businesses, requires men with years of experience to plan work and see it carried thru to completion.

In the Bench Department group can be found many veteran Consolidators who can boast of twelve and even fifteen years of

OLD BENCH PICTURE . . .

No written words, regardless of detail, could tell the story of Consolidated's growth like a few moments observation of the picture below furnished to us by Ted Edwards. This is the Bench Department of fifteen years ago. Some of the men pictured have gone on to the grander life but their efforts to move things along and their contribution to the company's growth will never be forgotten. Many of the men are still with the company in various capacities. The remarkable angle hard to realize is that the Bench Department at that time did a major share of the hand-work necessary for the completion of the airplanes being built including Sheet Metal, Tooling, Electrical accessories, Welded details, Cable Splicing, Tank assembly and practically any other required hand-work. And when the boys completed



these "simple chores" they moved over to the Final Assembly floor and assisted with the Final Assembly operations. The Bench Department at that time was almost the entire shop. Now it has been divided up into several de-

partments, each specializing in some branch of Aircraft construction. From this small group of Bench hands Consolidated has grown until today more than 3500 men are employed doing what were once "Bench" operations.

BENCH . . .

By Larry Boeing

service. Not a few have worked on every type of plane built by this company since its inception. George Young, Department Foreman, has years of mechanical experience to draw from. Starting in the automobile business he soon moved over to the Sterling Engine Co. who were producing aircraft engines. At this time he was inspecting their products for the U. S. Navy. He soon became connected with the Curtiss Airplane and Motor Co. where so many early aircraft mechanics got their first experience. He spent five years with that company before moving over to the newly formed Consolidated Aircraft Corporation. Starting as a bench hand his ad-

vance to his present position was inevitable as present results readily prove.

He is assisted by Jimmy Wilkinson and Warren Seely, who both have enviable records in the industry. Leading various groups are Ted Edwards, Henry Doerr, Bill Waite, Paul Schrenk, Harry Rocheville and Gus Johnson. These men are all carrying a considerable responsibility, because, during these periods of expansion it becomes necessary for them to not only see that production flows freely, but they must also train new men to produce details that meet the strict inspection demands.

Any story of the Bench Department

would not be complete without some mention of some of the early Consolidators who can be found working in the department. Among these boys you will find Ed Rasp, Otto Dudzinski, Albert Hagele, George Egleston, Otto Fink, George Keener, Dave Wilkinson, Otto Voss and Ernie Reckle.

But also very necessary are the hundreds of men who have come into the industry during the last few years and are working along doing an important job and becoming part of an important unit of what is to us the most important Aircraft producing plant in the world, the home of the world-famous Consolidated "Record Breakers."

6. Thousands of rivets are set in each working shift in the Bench Department. This method of fabrication is fast and the results very satisfactory. The important factor is trained personnel and proper equipment. Consolidated has both and more. The close-up pictured below is the basic operation that all aircraft construction centers about, the actual riveting of an assembly. Joe Smith and M. H. Watt are assembling the adjusting guides of what will eventually be a pilot's seat.

4. Certain details of the airplane proper are better handled as sub-assemblies. This simplifies construction and increases production efficiency. Warren Seely, Bench Department Sub-Foreman, discusses a matter of assembly procedure with Leadman Paul Schrenk. H. D. Rocheville who has just completed the item shown will afterwards direct his assistants according to the decision. In the background John Castle is operating a Drill Press, one of many small machines found in convenient locations about the department.

2. Jimmy Wilkinson, Bench Department Sub-Foreman, Ed Rasp and Inspector Frank Morse are shown above checking the detail assembly and operation of a Gear Box assembly. Items of this particular character require skill and patience with their assembly. Alignment of gears and bearings are held to tolerances that match anything being manufactured in any industry today. It is in the Bench Department that the majority of Consolidated's veteran employees are found.



ANODIC ANECDOTES

By Bert Naseef

From time to time items are turned into this column by anodizers who after all create the news interest in it. Quote:

"Our anodic soft ball team is making a high bid for top honors in the Consair league. We have had three practice games, winning them all. Slugger Lohman has been pitching good ball, and promises to hit his stride when the league gets under way."

Wally Miles.

"Practice games have been held at Horace Mann Field, on February 24 we played Tool Room and were ahead with a score of 10 to 3; on March 2, Drop Hammers lost a game to us with a score of 14 to 6; on March 9 we barely escaped a tie with Wood Shops, ending with a score of 11 to 10 in our favor. I would like to announce that all future practice games

will be played on Wednesday afternoons, while league games will be played on Saturdays. Let's have better turn outs."

Ted Lohman, Manager.

"Ted Lohman has been a proud papa since last March 11; by the way, Ted, what do you indulge in before pitching us to victory every Saturday?"

"There's a certain Romeo that has really fallen for Juliet; it looks like wedding bells soon; how's about it, Dave?"

Carl F. Johnson, Jr.

Our friend Ray McGuffin, in charge of the inspection side of the anodic department, not knowing that (ex-spray man) Lyle is now a new company inspector, put him to work shooting parts through on the other side. (Nice going, Mac.) Lyle, our new inspector, is no egotist, he will even reject his own spray work. "It's got to be good." Arkie.

The three flying clubs: "San Diego Flying Club," "Southern California Flyers' Club" and "Consair Flyers' Club" alone, represent an active membership of over 100 pilots and students. Their elapsed time of flying combined, since 1936, would total to upwards of 25,000 flying hours, reaching over 300 participants who are no longer in. *Consolidators* should all feel proud of this fact, and realize that opportunity to fly and learn how at the lowest rates this country has ever known, is right here in *Consolidated*. Here's happy landings to you all!

(Bert Naseef was founder and instructor of the first flying club—and has taken a keen interest in all three. Much credit is due Bert for inaugurating this plan here. Ed.)



BE WRONG JUST ONCE

By Craighead Weir

Because we are all human, we will of course make some mistakes. A man who never makes a mistake is just too perfect to live. But the man who makes NEW mistakes is far more valuable than the fellow who makes the same mistake over and over again. Wasn't it Horace Greeley who said: "You are bound to make mistakes, let them be new ones, not the same old ones?"

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TOOL DESIGN TIDBITS

By Maguire

Ed Gurling and Lou Shirley are looking for soft ball material. Step up boys; you might make the team.

Ray Peters is building a stepladder. Could it be for R. J. Knight, so he can check on Ray's table?

Marcella, when are you coming back? We all miss you.

After five years at *Consolidated* as Tool Designer, Mr. J. W. Van Doren is leaving for a new position up north. We're all sorry to see you go, and wish you the very best of everything in your new venture.

Milt Hangen is working harder to catch members for the Rod & Reel Club than he would to catch fish. Jerry Kick, "Say you saw it in the *Consolidator*." Roy Smeltzer, our vegetable vendor, is now smoking good cigars. Have you ever seen "Guillermo" Ekdahl eat an ice cream cone? It's an art.

Bob Hyder wants to buy a green eye-shade. Where could he get one cheap? I almost forgot, we moved—again!

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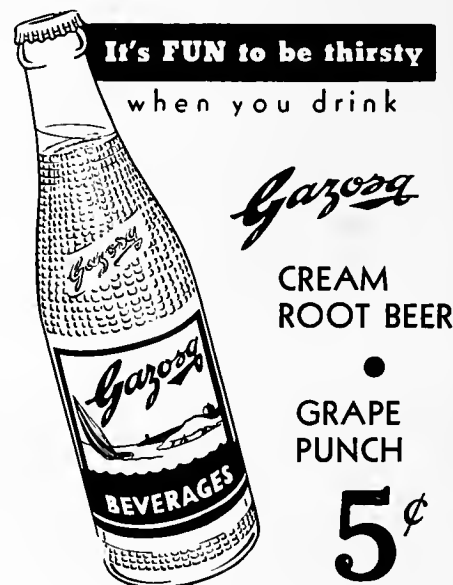
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THINGS THAT COME OUT AT NIGHT

By Craig

Spring is now officially here and things are again in full bloom. One of the most luxurious of the new spring growths is the beard on Martin George's face. Some crop, eh "Comrade?"

"Popeye" Petit has answered the call of the sea and is building himself a nice fast boat. He is assisted by "Salt Whiskers" Durlee. The job is supervised by "Barnacle" Joe Ryan.

Lou Gibson of Hull is a super athlete. "Gibby" is not only a good golfer, but also quite a bowler. Those bad balls he throws are just to dust out the gutters.

"Major Hoople" Heideman, proprietor of a Crown Point hostelry, is now a member of the wing Night crew. When asked how he liked night work, Frank said,

"Fine. It gives me more time at home during the day."

The Wing department is still trying to figure out which one of the Earnest twins was off sick last week.

Dick "C. S. Howard" Emrick has acquired a race horse and a winning one, too. Dick's horse has gone to the post twice and has garnered a win and a place. If this keeps up "Grico" will threaten "Seabiscuit's" record.

Don Garrett of the Wing department and Miss Mae Duley were married at Yuma on Saturday, March 2. Don has started off right by going home from work nights.

Ed Reynolds and Roy Musico of Paint can tell time by the electric lights. Gatehouse No. 2 says they can, in case anyone doubts the story.

Roy Weyman of Finish, better known as "Crooner," entertained at a dance at Kenyon's the other night. Roy can hardly believe it.

The night basketball championship was won by the Production department. The team won 13 league games and lost one. In the playoff they beat Hull 2 times out 3. The Production team scored 625 points in league competition. Dick Scott was high point man with nearly 200 points. Other members of the team were Speed, Selvaggi, Kraemer, Wilson, Carter, Clark, Gaughen, Seeley and Emslie.

Joe Drodz, Hull, built himself a boat. After looking over the completed article, Joe went down town and bought a wash board.

Henry Zilz, of Cutting, celebrated St. Pat's day with a new green work suit. Jack Smith, of Planning, wonders why it's always raining in Paint Shop. Carter, Bender and Browne of Production make quite a trio; how come Art Stone finally broke down and bought a thermos bottle? Inspector Martin, of Tail, once flew for Howard Hughes in the picture, "Hell's Angels." If a plebescite were held in Sheet Metal, the Scotch would take over "hands down," with Scotty Birse, Jr., and Scotty McCartney. "Bel" Starr, of Stock, has taken up golf. It gets his feet in shape for jitterbug dancing; Joe Havlik, Drop Hammers, has bowled four "300" games;

Chuck Pjerroa, of Drop Hammers, has picked out the rings and set the date; Fred Kipple, of Wing, was recently made Inspector; Johnny Hester, of Finish, bought himself a new house; for Mrs. "Red" Johnson a correction—it was peanut brittle, not peanut butter; Ross Dilling doesn't regret one glass of that stomach; Bill Wilson now holds down Planning department third shift; Phil Lima of Finish is a proud dad. His little boy made the front page of the "Union" two weeks ago.

The governor picked up a phone and called for long distance. "I want to speak to Killer Demoff at the state prison," he said excitedly.

"Sorry," a voice answered, "your party just hung up."—Bee-Hive.

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WHAT A COOK, WHAT A DINNER!

After three years of hearing Al Leonard tell how to cook beef steak and onions, I at last had the chance to taste this master's famous dish. And much to my surprise it was the best I have consumed since I left old Virginia. But as Chef Leonard would allow no one in the kitchen but his wife, I have a hunch the little woman should get the credit.

E. McJoyner, Hull.

MACHINE "OIL"

By Al Pfeiffer

Borne on the Eastertide comes a new bundle of joy to the Kerr household. Bob, the slight figure along Turret Lathe Row, boasts a lusty boy of 7½ lbs. Congratulations Mr. and Mrs. Kerr. Best wishes are also in order for the Burdette Stearmans who celebrated their second wedding anniversary on March 12.

Lights—Music—Camera. Here's the picture:

Recently it came to light that Bob Williams has determined on a musical career for his youthful daughter. Knowing Bob as we do, it piques our curiosity to ascertain why he should choose the violin when he has a definite leaning toward a harp.

Any day we expect to hear the strains of some familiar aria like Mendelssohn's Spring Song emerge from Fred Hudson's Drill Press Kindergarten. It appears that musical talent fairly abounds in the persons of Larry Theis, Ben Beseda and Emil Studnicki. Larry brags of 13 years of saxophobia and proudly points to numerous radio engagements in the east; "Swing" Beseda beats out a mean set of drums; while "Jive" Studnicki is both arranger and instrumentalist.

This past month has marked the shift changeover of the various leadmen. Their melody strangely remains the same but the lyrics change with the clock. We eagerly await the time when the nite crew will inadvertently blame the nite crew.

Habitués of the dust track are in for a treat; Sam Hill's midget racing car is reputedly the fastest thing on wheels in its class. Challenging its supremacy is the dark horse entry of the second shift crib caretaker, Jim Hull. Line forms to the right, lay your bets.

The latest procedure that of posting rejection reports, has quite a few of the lads hiding their badges. Shame, shame, everybody knows your names!

Spring has brought a lot of queer things in its wake this year, among them is Jake Brugger's work cap—an honest to goodness French beret.

As soon as Walt Koenig's radio trans-

mitter is completed some of us may be able to speak to our mothers and friends back east.

RADIO CLUB

A Consair radio club is being formed, open to both licensed and unlicensed members. An automatic tape machine for group instruction has been made available for those who wish to learn code. Announcement of full details will be made later. Among the many members already lined up are operators: Tom Hemphill, Frank Machado, Chuck Taylor, Cliff Thompson, Robert White, Frank Seaquist, Rolly Tyce, Harold Savage, Frank Kemper, Charlie Booher, Hap Hopkins, Don Burger, Tom Eckles, Charlie Sands, Leonard Holmes. Among the other members who are showing keen interest are: D. Greene, Les Johnson, Al Griffith, Sam Seligman, Ken Smith, Jack Wright, Owen Dillon, Bob Mussen, Harry French, Don Southwick, J. C. Hoover, Al Fabri, Reno Wheatcraft, Walter Koenig, and G. L. Ealy.

Congratulations are in order for "Dad" Sheppard, our six-gun sheriff from East San Diego. It has been stated that his daughter is engaged to a young man from North Island. Happy landings!

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OH, HE FLOATS THROUGH THE AIR . . .

WHEN Art Sowell, of Wing, floats through the air with the greatest of ease, he does so without the aid of a flying trapeze. Instead, Art, who already has close to 300 jumps to his credit, takes to a parachute and a bat-wing rig for his aerial thrills.

The experience of "piloting" one's self

through the air on a bat-wing rig, explains Art, is similar to actually piloting a plane. One can bank, turn, nosedive, or tailspin on a bat-wing, just as one may perform similar maneuvers in a plane. But the bat-wing soarer must know something about birds and their method of flight, according to Art, for the wing and tail pieces of the rig must be controlled much as a bird controls its wing and tail feathers.

Art recalls two particularly hair-raising experiences, both of which were nearly fatal. On one occasion, during a barnstorming tour in the midwest, Art jumped from a plane and, on his way down, was performing various mid-air tricks with his bat-wing. Part of one wing ripped into shreds due to the terrific strain caused by his rapid descent, and threw him into a spin. Before he could right himself he had fallen to within 300 feet of the ground. (That's pretty close when you're falling between 30 to 60 feet a second!) Needless to say, he managed to jerk open his chute in the nick of time. Had he attempted to pull the rip-cord while in a spin, the shroud lines would probably have wound around his body—and we'd have . . . no story here!

On another occasion Art leaped over the water, floated down in his chute, then—close to the water—unhooked the chute, and jumped. He was a little too high when he leaped, so that when he smashed broadside into the water he crushed in a set of ribs, and a lung with 'em. Walking out of the hospital onto the flying field sometime later, Art met a friend about to take-off. The friend asked him to give his plane's prop a crank. Art obliged—

and the prop kicked him and broke his arm! After hundreds of chute jumps, Art broke his arm while grounded!

Art has practiced his perilous hobby for eight years, and may continue it in his spare time when he completes a new rig he's developing now. Art's married and has four children.

According to Art, the normal rate of descent, without the bat-wing, is about 118 miles an hour. The rig, he claims, slows down his rate of fall to between 60 and 70 miles per hour—just a mere crawl!

SWIMMERS ATTENTION

John Woodhead, Sr., wants all swimmers to get into the newly-formed swim club, as it will soon be time to practice in Mission Bay. Johnny and Bob Harshaw are prepared to give free coaching to anyone who desires it; they have about 10 men now.

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FINAL ASSEMBLY GOSSIP

By G. W. Stinger

SOME one wanted to know whether the Final Assembly Department has folded up, because they have not been represented in the last few *Consolidators*. The final assembly gang is strung all over the plant, so it makes is very difficult to get in touch with them, but some are still around the yard.

Our lead man is "Art" Brennan, with a very sunny disposition. Art sure blushes easy when he gets into the sun for a short time. He was talking about buying a hat the other day—"does anybody know why?"

Charley Fleickner was down on Broadway the other night and saw a telescope with the sign "5c to see the moon." You know how those small town boys are, when they come to the city, they fall for

anything. Charley paid and started to look through the telescope. All at once he scratched his head and asked the astronomer what color the moon was. He was told it was white, and Charley said it was red. Come to find out, he was looking at a large Neon light on top of the San Diego Hotel. That's one time you saw the light, Charley, "better looks next time."

The smiling crew chief of the X-31 is "Harry" Earl from the Marines, and his brilliant helper is high-flying "Vick," just a mere boy from Los Angeles.

Our good-looking man "Dale" belongs to the ex-Marine class. Every time something goes wrong, he starts looking for the house boy; he still thinks he is in China.

Battling "Nelson" from our Navy is still wondering and pitching, and can't get over it, him working on land instead of a ship.

A man who finds time to tear down what some fellow workman has tried to build toward success, has but little time left for success himself. Never knock or try to pick the other fellow's job to pieces . . . spend more time trying to improve yourself.

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TUBE BENDING

By Hart

It's a good thing that Danny Whorton's wife is coming home before very long, or he would be a walking skeleton. Must not be eating right.

We hear that Norman Freakley has given up his abode at Mission Beach and moved to the city (La Jolla.)

No wonder they call Cooper "The Bull" after the way he handles boxes of $\frac{3}{4}$ " tubing.

Who is the fellow who was called to the North Gate to have his picture taken and discovered he had left his false teeth at home? Was his face red?

It won't be long now before Bert Freakley starts to polish up his fishing poles. The weather is getting kinda warm.



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THE CONSOLHOBBY
CORNER

By Lloyd L. Lee, Jr., Eng.

Believing it to be true that, next to working at his hobby, the real hobbyist would rather talk about it, than do most anything else, this writer is inclined to experiment with a new feature, for which the editor of the *Consolidator* has given gracious permission. This will be the Consolhobby Corner.

To make this experiment a success requires only the co-operation of the many hobby riders in this big *Consolidated* family. For instance, we do not know if Frank Fink knows that Dick Robbins and Dick McCreight also collect stamps. Perhaps it would be to their mutual advantage and pleasure, to have a common meeting ground in the *Consolidator*. It has been found that Dick Robbins and Frank Fink, who are numismatics, and Tom Hemphill, a radio "Ham." Lauren Bonnell builds scale model airplanes, Felix Kallis goes in for collecting knives and guns . . . claims to have a real head-chopper offer with some 40 nicks in the handle. Dick McCreight goes in for stamps. Berger of Hull takes to photography and Everett Jacobson follows wood carving . . . just to mention a few and in Bob Mussen we have a hobby show manager of the first water.

Let's get things rolling in Consolhobby Corner . . . lobby for your hobby . . . turn in a word about what you do for your hobby, or maybe snitch on your fellow worker and what he does. Let's have all the news. Perhaps a hobby show can be held at some time in the future. What are your hobby ideas? Let's hear from you!

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SAN DIEGO, CALIF.

DRIFTING THRU DRAFTING

By Jeff Bouley

AFTER a long period of expectancy the boys in the Structures group really got hot the other day, but hardly in the manner one would anticipate. It was actually more on the order of housewarming. At any rate some sparks from the construction going on outside the window ignited Abe Kligman's handsome canvas drapes and immediately the boys galvanized into action. Abe and Spike McKinney both rushed for the fire extinguisher and collided en route. Ken Jackman rushed for his stop watch, movie camera, optical pyrometer and maybe some other instru-

ments which measure in millidecibels or hectares. Little Giant Watts showed that he is a true Toastmaster by leaping into the breach and marshalling his forces with a series of staccato barks. Clarence Gerber hurriedly thrust an unlighted cigar between his teeth so that he could establish a perfect alibi. As he gathered in the remaining canvas preparatory to erecting a first aid tent, Norm Robbins was heard muttering something about it being a shame that his M.I.T. fireman's coat—the white duck one with the brass buttons—was home in the closet. The fire was finally extinguished and Dick McCreight the Silent Sage of the Ozarks, looked up wearily from his work and broke his long period of quietude to remark, "I guess it's out now." The only person who preserved his equanimity during the whole incident was Herb Hinckley who did not even look up from his work, believing all the hubbub was caused by Henry Mandolf preparatory to signing a drawing.

During this day and age of sophistication and things commonplace, it is indeed refreshing to witness the remarkable effects of kindled emotion within the manly bosoms of two of our brethren. Johnny Valuch, with the ubiquity of a Fuller Brush man and the perseverance of an insurance agent, finally broke down sales resistance and obtained a promise of marriage from one of San Diego's fair young damsels. From that moment on things began to happen to John. Usually a very well-regulated individual, John rushed madly home, threw open the windows, beat on his chest, inhaled deeply, and hopped into bed. Whether he remembered to remove his shoes and vest, we were unable to learn. At any rate he forgot to wind and set his alarm clock, misplaced his car keys, etc., with the result that he was barely able to make it to work the next day in time for lunch. Lee Nelson made the fatal mistake of courting a gal away over in La Jolla whereas he lives in East San Diego.

Next he made the mistake of trying to get in good by taking her dog out for an airing. Then he made the mistake of losing it somehow. Then he made the mistake of returning to her house, whereby he did receive a most caustic verbal panning. And so began a one-man search thru the darkened streets of La Jolla for the missing pooch. The night wore on and with the gray streaks of dawn and the collaboration of several milkmen the dog was duly recovered and returned to its owner, who was now indignant for being awakened so early. Then to cap the climax the pride and joy of the Nelson motorized equipment began to falter and finally failed before half of the homeward journey was completed. All this without a whimper at the feet of love. If Nelson keeps up, he'll make Raleigh and Galahad look like a couple of pikers, and Beau Ideal and Beau Geste will be read by beginners only.

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WOODSHOP CHIPS

By J. E. Hodgson

Danny Cupid completed another job Saturday, March 15, with the marriage of Miss Geneva Boelling, of Carlyle, Ill., and Charlie Pagerelle, of the Wood Shop. From current reports, Mrs. P. is a wonderful cook. Lucky man!

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Campbell Murray is checking blocks on the wood assembly fixtures week days. He is an enthusiastic Lawn Bowler, and may be seen any week-end afternoon on the Bowling Greens at Balboa Park.

Joe Shuter should have been an Irishman; Mrs. Joe presented him with a fine son at 12:01 a.m. Sunday, March 17, the day of all days to the children of Erin.

Tommy Bell emphatically denies that he is contemplating re-marriage, despite all rumors.

T'other week-end Bob Brabban invited some of the boys out to his new place in La Mesa, with tools. He then put them to work fencing in his lot. However, he supplied plenty of refreshments, and a good time was had by all, and a fence by Bob.

Bill Clark and Carl Brown are back to day shift work. Bill says he wishes to attend evening classes, otherwise he liked the night work.

Josh Littleford, with his saw filing equipment, has been moved from the Wood Shop mezzanine to the new building in the southwest corner; his new home. Maybe you can stay put for a while now, Josh.

Carl Shumaker attended the Orange Show in San Bernardino. He tells us that San Diego had a fine showing, part of which were moving pictures taken over the city, giving a remarkably good view of our Consair plant.

Fred Purdy, our genial template locator, has been under the weather. We all hope to see you back by the time this is printed, Freddy.

We are all getting ready for the baseball

season again. According to manager Bob Harshaw the Wood Shop team ought to make a pretty good showing, having among its members Pitchers Harry Whitaker and Floyd Delners, Bud Owens and Red Butler catchers, and Charlie Pagerelle, a better than good all-around player. Others are Bud Hadley, Mixon Bros. Boyd Robinson, Harold Hudson, H. Jensen, J. Olsen, Jim Cook, Carl Klicher, Curly Jone and Glen Phillips.

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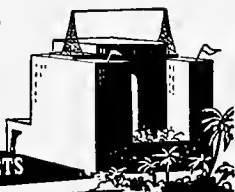
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HOT SHOTS FROM WELDING

By Willie Winchell Hartman

WHAT well known youngster got pinched for driving without an operator's license and fined \$16—wow! You ought to know you can't get away with that forever, Danny. Our police force just loves guys like that.

Red "Hero" Wilson is a great little fire putter-outer. Our recent conflagration caused him no end of worry, what with trying to run with a fire extinguisher and operate it at the same time. Poor Tex, and little Paul Ferrara got themselves a bath.

Does anybody want to adopt a bright baby boy? Clyde Walker is trying to get himself adopted and the only taker seems to be Al Miley. The fact that Al has two beauteous blondes on his hands has nothing to do with it, of course.

Pete Cinquegrana, our well known Baltimoron, knows now when a S. D. cop says something he means it, even if said cop has to put it in writing. Don't worry, Pete, our jail is a swell place—to stay away from!

Al Miley, the dancing gigolo from Frisco bay, is trying to make a deal whereby he will exchange dancing lessons for instructions on how not to get his fingers caught in the nibbling machine. Al says he's an expert in dancing the "Rumbar."

E. Lafayette Bailey just got on board the ferry when he ran out of gas. Not only did he hold up the traffic, but he had to leave his car on the ferry for four trips while he chased all over Coronado trying to get some gas.

Our basketball team, consisting of B. Baily, H. Dye, the Aquire boys, Flowers, Williams, Langdon, Maxfield, Feeney and James, has finally come through with the championship of the second league. Being beaten by a superior team is nothing to be ashamed of and so we are still proud of our team's showing.



Stan Marcyan, who seems always to have a camera loaded with film and all set to shoot 24 hours a day, snapped this picture. He titled it, "Big dog—little dog—say hello."

Jules Aquire is the proud papa of an 8½ lb. baby boy and, of course, cigars are in order. Jules says he's only sorry it wasn't twins, but what's the Mrs. say, pal? Anyhow, best wishes for the baby and mama.

What Welder from Baltimore recently bought a Tiajuana jalopy and didn't know it was a Mexican car until it came time to register it? Poor Pete had a heck of a time trying to prove his citizenship. Well, you know those Mexican bargains by now, or at least you ought to.



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Tune in on "Lowe Highlights"—KGB, Tues. and Fri., 8 p. m.

CONSAIR FLYERS

By Barney Farley

CONSAIR Flyers, newest flying club to take its place in San Diego, is being formed. It has been founded along the same lines as various other flying clubs, incorporating all their finer features and adding a few of its own where needed.

The Flyers' first ship will be a new Cub-50 or 65, which will be used as a primary trainer for students and will also accommodate the needs of the pilots. A three-passenger Cub Cruiser is the second ship planned by the club. This latter ship is a 75 horsepower job, with a top speed of 110 m.p.h. and a landing speed of 40 m.p.h. The Cruiser is also in the 2 S class.

The club, however, believes one of its finest advertisements to be the members who have already joined and who, perhaps now, are interesting prospective "Flyers."

To begin with Orville Hubbard had the idea. It seems Orv wanted to resume his flying, preferably in a club. Undecided on whether to join the San Diego Flying Club, an excellent organization, or the Southern California Flyers, founded and managed by the very capable Al Griffith, he resolved to take it upon himself to start a new one. The result was the Consair Flyers.

Having been past vice-president and operations manager of the San Diego Flying Club, Orv gained much experience and became very efficient in both flight and ground operations. He will assume similar duties as operations manager of the Consair Flyers.

Next comes Arthur Becker (club president), former Pensacola student and private flying enthusiast. Becker has been instrumental in organizing the Consair Flyers

and is its first charter member. According to all reports from North Island, where Becker is stationed, the fellows there are hearing plenty about the club.

Then comes Miles Blaine (club treasurer), a pilot with a goodly number of hours to his credit. Miles, one of our most enthusiastic members, is one of those fellows who would rather fly than eat.

Another member is Steve Brown (club secretary), solo pilot. Apart from his duties as secretary, Steve is also acting chairman of the membership committee.

Tony Lis Settie has also decided to join our ranks. Tony soloed a few years ago and after a considerable absence from flying, has decided to start anew via the Consair Flyers.

Club instructor will be Louis L. Loyko, graduate U. S. Naval Air School, Pensacola, Fla., with four years of Naval flight experience. Taking a discharge in 1933, Mr. Loyko bought a ship and barnstormed around central California. In off seasons he did student work for the Duck Air Services of Oakland, Calif. An employee of *Consolidated* since 1936, Mr. Loyko's flying in San Diego area has been strictly student work. To have an instructor of Mr. Loyko's caliber, is a definite asset to the club.

Operations are planned off Tyce Field, Chula Vista, where arrangements have been made to take care of the club's necessities. Meetings will be held in Room 530, S. D. Trust & Savings building first and third Saturdays each month at 7:00 p.m. Those interested are invited to attend.

Pun of the week: George Wire: "After the bowling my team has to hurry to make a plane."

Bowling Manager: "Flying far?"

George Wire: "No. We're on the night shift at *Consolidated*."

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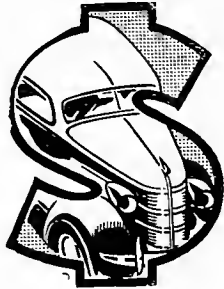
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PRODUCTION MINUTES

By "Brad" Bradshaw

WITH that quantity order budget keeping my nose to the grindstone, ear to the floor and eye peeled for the boss, I feel like a contortionist (no cracks Gimber, about my nose needing the grinding) so I was "the little man who wasn't there" for much news this month. Although I did visit, (they called it "snooping") the Ted Andersons, and his new home and Craig Clark and his new "heir." Ted has the front all cleaned off ready for the grass and was looking forward to "payday" and the seed. Craig, Jr., is some boy and "papa" and "mama" have a right to be mighty proud. It's easy to see that Craig has lost a great deal of prestige since the new arrival. His picture that adorned the front mantel is now nailed up in the garage and for some reason he has a mighty bad case of "laundry tub hands." Babies will be babies. Harvey Muck, Henry Doer and their "mamas" arrived while I was there and the ladies were given a chance to try their hand to see how much of the skill was preserved from that age-old science the "three point change."

Almost forgot about stopping to see Mac McGuinness laid up with a strained back, at least that was his story, and if he has been going in for some of that "McCoy mountain industry", it's highly probable, as traveling these canyons on the run is mighty hard on the "torso." "Mac" began groaning about his "indigestion" after I rang the bell but later admitted it was an "act" as he thought I came after a "handout." Not until hunger drove me out for a sandwich did I realize how cleverly that fellow had "manuevered" me out of a feed.

Perry Ogden informs me that Commander Carpenter's objectives in wanting that quota of orders is for the industrial, technical and social welfare of the employees. More orders, more shop production, and less time for Messrs. Koenig, Brink, Campbell and Roberts to "overdo" their face and hair. It also keeps Rasmussen, Allison, Dietzer, Gimber and Pitts, all married men, away from the girls' desks, thereby decreasing the chances

of those "marital perturbances" that tend to disrupt the social happiness in the home. Being a bachelor, my objective must be to keep from getting "canned," or to get more work from these "night speed demons" Gaughn and Percell.

Roy Coykendall, to prove his versatility in other than outdoor sports, has gone in for the "finer arts" as well. At present he has mastered the first three lines of "South of the Border" with only two months of rehearsals, with a magnificent blend of tonsil, adenoid and catarrh, producing a "nasal melody" that touches the soul of Eddie Generas.

Glad to see Jack Mulroy back and going in high gear again.

Jeff Bouley has never told us that "Farny" Farnsworth was a "child prodigy", getting his engineering "sheepskin" in his teens, which accounts for the "Fullers dream" on his upper lip.

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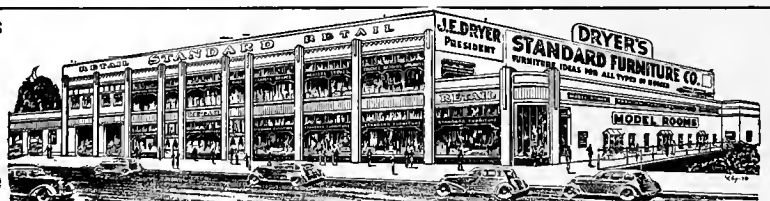


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Dear Diary:—

"Sandy" Falbaum's case of sleeping sickness is not the "sneezing" kind but "hit the hay and snooze" for "Sandy". Rose, the wife, although a graduate in pharmacy, has yet to hit on the formula (after the victuals are gone) that will cure the malady.

As for athletics, Lloyd Bender must show more proof of being a "hockey player" than receipts from that business where the "three gilt balls" hang over the doorway. "Archie" Stone and "Trotsky" Trotman say their speed is due to being "fleet men," get it? But Production Manager Carpenter is still "Commander" and that shouldn't slow 'em up. George McCallister, who has been hibernating in "Alaskan" igloos for some time, is back, and getting "thawed out." Process cards that were lost several years ago, when he was a "planner," have been found lately proving to him that

like those "mounties," "we always gets our cards." What chance has a fellow to cover up a "planning muff" when Holman and Johnson of Purchasing always vote against me? There's no justice to this majority business. We felt that with the able assistance of "Flash" O'Donnell, Ed Stewart would be relieved of many of his "worries" and take it easy but we noticed that while waiting for Ogden to terminate a conference he paced a "Chula Vista block" and flipped his cigarette down to a very small "butt" in three minutes. Ray Hartmayer reports that his cigarette budget shows a profit since Bill Liddle took over his new duties.

Famous last words of dispatchers, "I can't find the parts, Mulroy, sign this A.V.O. for new ones." We hear Johnny Penfield has been feeding "Pinion nuts" to Ben Leonard to keep him busy while he steals "hulls" from the paint shop. Joe Maloney has a bell to summon Miss Bennett and Miss Wright for blueprint service but some of the shop lads still yell "yoo hoo" at the girls. Just a California custom. Bob Morse and "Min" Mineah never seem to decide who wins those "verbal battles" over parts. Bob can't answer all the questions "right off the bat" but with a little preparation he does right well.

Sam Seligman, electrical expert for the

Bowling operations, says that Jack Bearse wrote to Major Bowes for that "armature" he asked him to get. Bill Fleet and Jim Kendrick didn't like "Gone With the Wind." We can stand for Sherman's March to the Sea, carpet baggers and Reconstruction but "them dern Yankees did not whup the south", says these southern gentlemen. You take the south, suh, and give me "Scarlett."

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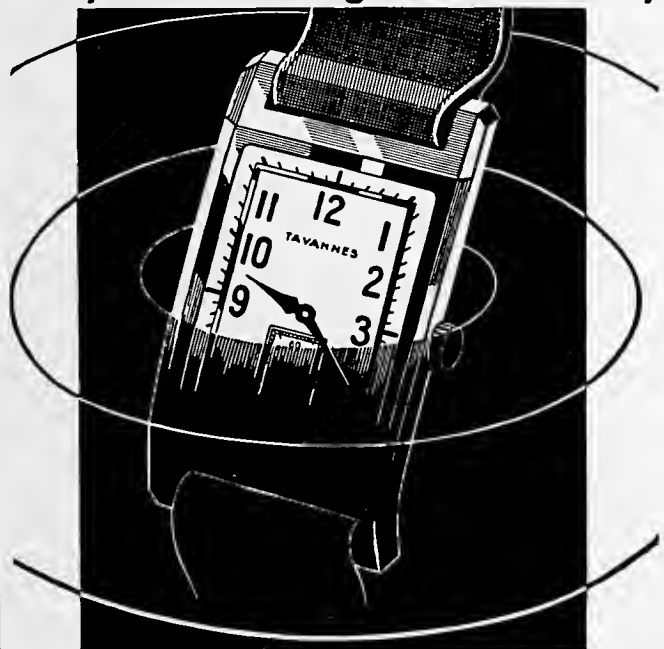
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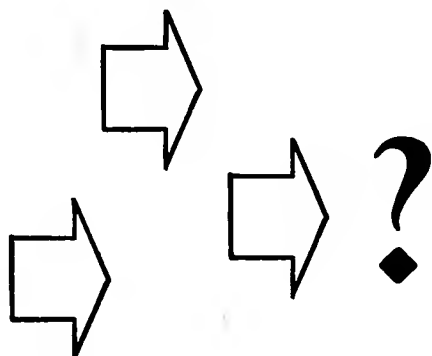


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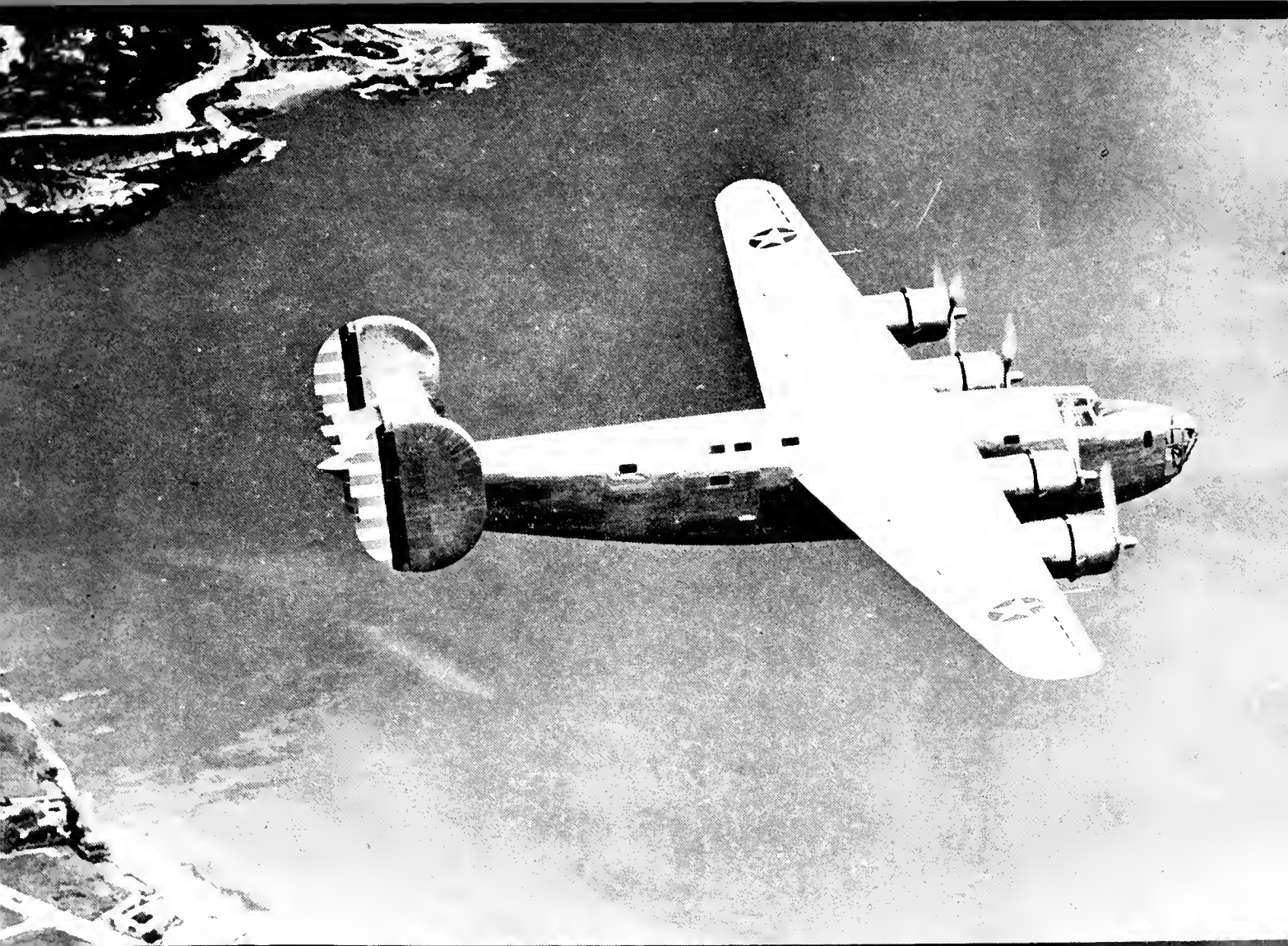
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March 1894 . . . April 1940

CONSOLIDATOR

Volume 5

MAY, 1940

Number 5

S. A. E. MEETING . . .

A highly successful dinner meeting was held under the auspices of the So. Calif. Section of the Society of Automotive Engineers at the San Diego Club on the evening of Friday, April 19th. The meeting was attended by over 300 persons, including some 75 representatives from Los Angeles Aircraft factories. Leaders in San Diego's aviation activities were present, and an added guest of prominence was Reid A. Railton, designer of John Cob's famous 360 m.p.h. car.

Principal speakers were: Walter Hite, Chief Engineer of Timm Aircraft Corp., who presented a paper on plastic materials applied to aircraft structures; Ken R. Jackman, Chief Structural Test Engineer of our own engineering department, whose prepared paper was on the subject: "Modern Aircraft Materials and their Testing," and Mr. J. C. Lyons, West Coast Representative of the Budd Corp., who presented a paper for Dr. Michael Watters on stainless steel construction. A short talk was also given by E. A. Ross of State College, who was identified with the building of the early N. C. boats and the construction of the first wind tunnel at Landlely Field. Some highly interesting motion pictures taken for the engineering department by our photographer, Otto Menge, were also shown.

A good bit of the success of the meeting should be given to Don Waller of our engineering department, acting technical chairman for Chief Engineer I. M. Laddon, who was east on Company business on this date.

X NEWS

A little too late for inclusion in this issue was an excellent snapshot of John P. LaLanne of Experimental, and Miss Mignon M. Largent. Attached to the snapshot was a clipping from the local paper under the heading of Marriage Licenses Applied for April 16, also mentioning LaLanne and Miss Largent all in one line. Congratulations!

NOTICE

A meeting of the San Diego Aero Club will be held on Mon., May 13th in the Sun Room of the San Diego Hotel, beginning at 6:30 p. m. The guest of honor will be Mr. Richard Archbold, Research Associate of the American Museum of Natural History, who will be presented with a trophy in commendation for his Round-the-World flight and scientific exploration work in Netherlands New Guinea. Other guests of honor include Major Reuben H. Fleet and Mr. Russell Rogers, who will comment upon the motion pictures taken during the flight around the world.

All officers and employees of *Consolidated* are invited, whether or not they are members of N. A. A.

SAN DIEGO AERONEERS . . .

The Effie trophy was awarded on April 14th to Harold Strawn of the Loft Dept. Although Harold was able to fly only two months of the three for which the trophy was awarded, he amassed enough total time to win this award.

Contest flights for the Stanley Andrews trophy started on April 14 and will run for a six months' period, and will be awarded on high points. Contests are held on the last Sunday of each month at the San Diego Aeroneers' field on Camp Kearny Mesa. Anyone may enter, but only club members are eligible for points on the trophies.

PET NOTE

Due to the short notice of posting the request for pet pictures, insufficient prints were secured for inclusion in this issue. However, this feature will run for sure in the next issue, so don't delay. Be sure to send in glossy snapshot prints of your pets as early as possible. Don't delay. Hand them in to the news gatherer in your department, or send them to the *Consolidator* thru the mail. Be sure to mark on the back of each snapshot, your name and clock number and department, as well as the name or names of your pets, and any other notes about them you wish.

AVIATION DANCE

Members of the San Diego Flying Club, Inc., *Consair* Flyers and Southern California Flyers Club invite all to attend a novel Aviation Dance at the Broadway pier on Saturday, May 4, starting at 8:30 P. M.

A unique and admirable feature of the affair is that though unitive in purpose, these three flying clubs are in competition with each other in the course of their flying and operating activities.

Laurie Higgins, well known maestro, and his 11-piece orchestra will furnish the rhythm. Dancing from 8:30 P. M. to ?

Operators of local flight schools have been invited to display posters advertising their operations in the ballroom.

Good fellowship is to be the reigning spirit of the evening. Flyers, non-flyers, those interested in aviation, those not interested (we'll probably make you interested before you leave)—one and all, are invited to come down, do a little dancing, a little whining if you prefer, turn a few handsprings or plan a high dive off the end of the pier—but come on down and join the fun!

Barney Farley.

TENNIS TOURNAMENT

Due to the success of last year's tournament and to renewed popular demand, a men's singles tennis tournament is to be started May 18, 1940, playoffs taking place on subsequent Saturday afternoons.

Players desiring to compete are requested to submit name, department, and clock number to any committee member by May 10. Official entry blanks are available from committee members or on the tennis bulletin board at the south gate.

Be sure to watch the south gate bulletin board for last minute announcements.

The committee: Hudson (Acctg.), Vernon (Acctg.), Bill Miller (Wing), Peterson (Loft), Lockwood (Prod.), and Gilchrist (Empl.)

About 450 years ago Leonardo da Vinci attempted the first flying machine. His assistant Astro, was the first test pilot.

ROD AND REELERS

By "Brad" Bradshaw

Membership in the Consair Rod & Reel Club is nearing the two hundred mark as the result of their recent drive, according to Milt Hangen, secretary of the organization.

Sporting activity, especially fresh water and ocean fishing, is getting underway rapidly and several fine prospective prize winning specimens have been landed already. Two groups of deep sea anglers, one from Engineering and one from Production have been out to the Coronado Islands on chartered trips for a fling at the Yellowtail. Roy Coykendall, Glenn Hotchkiss, John Hopman, Leo Bourdon and Eddie Lang, dangerous rivals for the Annual prizes, were among the group of early birds.

Roy Smeltzer and Lloyd Bender have been stimulating interest in lake fishing with several trips to Henshaw. Bill Belows is getting his boat ready for regular runs and everything points to a banner year for hooking the fighting "brain food" table decoration.

Oil up that reel, fellows, and let's get going—see you at the "ole swimming hole."

UNSOLICITED

When a fellow finds a good thing I believe he ought to pass it along, especially when by so doing he is not only helping his pals but himself.

And fellows, Flo (?), that's my girl friend, pal and wife all in one, and I have sure found something good. We've learned how to live better for less.

About a year ago we made a move that we now know to be the best we've ever made. We've got our own little cottage on our own little acre. Here we grow our own fruit, our own flowers and our own vegetables. It isn't so much the value of the things we grow, although we now see where this can be made into a material saving, but it's the fun of doing these things.

We're close to, but back from, the main highway. We're away from the noise and traffic hazards and yet we're within 20 minutes of *Consair*.

My spare hours are spent in a manner which gives me an entire beneficial change from my work at the plant. I know I'm a better man at my daily job because of this new way of living we've found. Flo and I are so busy building up and adding to our very own little place and are finding so much happiness in doing it that, —well, we just wanted to pass the idea along to you.

There's plenty of room for many of you to do as well or better.

James R. Lay,
"Mayor of Mt. Helix."



YOUR MAINTENANCE GANG

WHILE the men in the maintenance division are not on the production line, never let it be said they don't produce.

We are the fellows for whom you call when your ability to operate ceases. Your call is heard, and there we are, whether it be electrical, plumbing or any other branch of maintaining operation.

Let it be known that we feel as much a part of production, as wing, hull or ailerons of any ship you produce.

We are "the men behind the guns."

Your Maintenance Gang,

R. L. Thomas.



Scotty McCartney has tired of the fast city life, while Hank Liegel yearns for the bright lights of the city. Scotty has moved to National City and Hank's beautiful new home is at Mission Beach.

SAN DIEGO FLYING CLUB NEWS

By A. H. Davidson

(Note: See note elsewhere about the Aviation Dance.)

The grading operations at the Club field, Grande Vista Airport, at Otay, Calif., have been completed and Tommy Butterfield, Melvin "Knut" Knutsen, William "Wild Bill" Travis, Charlie Culver and Stan Petrol, are to be complimented upon the fine job they have done.

The new Cub "50" is to be delivered on Sunday, April 21, 1940, and will be welcomed. Flying activities have been quite brisk lately, and this new ship will take quite a load off of the Cub "40." The Rearwin has just had new bushings in the gear case and is in "top" condition.

Fred Young passed his examinations before C. A. A. Inspector on Wednesday, April 17, and is now proud owner of a private Pilot's License for 2 S. Immediately following his license, he took off for Yuma, Ariz., with his bride to be, Miss Ruth Quiggens. The happy couple were married in Yuma and returned that evening. This was Mrs. Young's first airplane ride.

On the same day that Fred Young passed his tests in the Rearwin, Bud Selteneich passed his examinations before a C. A. A. Inspector for his Private Pilot's License for 1 S, in the Taylor Cub "40." Three weeks previously Bud also received his Airplane Mech. License, at satisfactory completion of examinations given by C. A. A. (Civil Aeronautics Authority). Bud is leaving for his old stamping grounds, Alaska, and will be missed at the Club as he has made many friends in his stay here.

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WOOD SHOP CHIPS

J. E. Hodgson

The Wood Shop added to its benedicts by the marriage of T. E. Donnelly, April 13 to Miss Mary Louise Tessedá of San Diego, Yuma, Arizona being the place where the nuptials were performed * * *

After seeing that the right jobs done in the department were sent to the proper places, Joe Apple after about two years of this work, donned an apron and is now working on the bench with the pattern makers * * *

Congratulations and good wishes are in order to James Carreras on being back on the job after a serious spell of pneumonia * * *

Bob Rutan and Gerald Bradbury are living at Joe Apple's place. It appears that the other night the house was disturbed by some prowler trying to gain entrance illegally. Bob and Joe arose and evidently scared away the intruder, but "Brad" slept on * * *

Herman Drasin is to be congratulated on his marriage, April 13, to the good looking and charming lady, Mrs. Ethel Zimmerman. Mrs. Drasin has experienced life in ways that not many of us do, or desire to. Born in Russia, she was forced to flee during the revolution. Landing in Shanghai, China, she spent the next 20 years there, and just got away from there when the Japs started their invasion. Let us hope that her marriage begins an era of tranquility, to last the rest of her life * * *

The Wood Shop Baseball team has been rather disorganized, due to the fact that part of the players have been working on the graveyard shift. We have a couple of first class pitchers in Harry Whittaker and Lloyd Del Nero. However, when the

season opens we expect to be right in there playing ball. The players are hoping that spiked shoes will be allowed, as a safeguard again accident due to slipping * * *

A new arrival is announced in the person of Lloyd Ronnie Del Nero, Seven pounds, 1 $\frac{3}{4}$ ounces, on April 15. His Papa is the ball pitcher and his Mama is just that, his Mom, "and ain't that sumpin'," Mrs. D. N. Best wishes * * *

Bill Clark, wearing a pair of bell bottomed overalls, was grubbing out some willow shoots out of his garden. Suddenly he started a combination Indian war dance and Irish jig. During his gyrations something shot out of his pants leg; it turned out to be a lizard about six inches long, in search of adventure probably * * *

The *Consair* Swimming Club especially invites lady swimmers to join its ranks and take part in the many swim contests and other activities that will ensue during the coming summer months. This invitation includes both lady employees of *Consolidated* or the lady relatives of other workers in the plant. Contact John Woodhead, Sr., for further particulars * * *

According to Clif Berger we don't have to worry about being slaves in the U. S. A. at least not while the kids at the gates are selling "Liberty" for a nickel * * *

We are hoping to see Lymn Baker back on the job again soon. Don't forget old boy, we are all pulling for you, so hurry and get well. * * *

Don't you believe it:
"Little dabs of powder,
Little drops of paint,
Always make a girl
Look like what she aint."

Fellow at lunch counter: "Will you change that Swiss Cheese sandwich I ordered to American Cheese?"

Waitress (to cook): "Naturalize that cheese sandwich!"

An ignorant man is often our own inability to understand his method of explaining or reasoning.

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Facts about the Femmes BY KATHLEEN SCHNEIDER

WELL, the news deadline has caught up with me again, and if I only had the descriptive ability of Bradshaw, the "seeing eye" of Production column, I could really make some use of the girls' column. However, maybe fifteen scraps of paper, scribbled notes, and pencil scrawlings will find their way into a column. Hope so.

There is something new under the sun: Florence Cannon has an attractive new hair-do; Juanita Smith has a new affliction, "occupational neurosis" in her left arm (your guess is as good as mine) a newly-acquired niece sent Lois Campbell dashing to Los Angeles recently. Lois reports that being an aunt for the first time is a darned unique experience; Norma Haugard is the new addition to the switchboard; Louise Girodon has a new shade of lipstick.

Comes spring and the heat of noon sends four weary working girls up hills and around canyons to munch in Balboa's shade and greenh. Brendan Fottrell, Louise Girodon, Mary Eleanor Meredith and yours truly, hop nimbly aboard Nijinsky, the Leaping Ford, and away we go!

Consolidated now has 54 feminine employees.

Since Grace Koenig has been working nights, we don't get a chance to converse with her. So from all the rest of us—"Hello, Gracie!"

Girl: "I know a man who has been married ten years and he still stays home every evening."

Boy: "That's what I call love!"

Girl: "The doctor calls it paralysis."

Any man who sits in the electric chair gets amps in his pants.

Mary Eleanor (to current boy friend): "What did the ocean say to the airplanes going by?" "Nothing, it just rolled over and waved."

Brendan contributes the following:

A recent Satevepost article "Bombers by the Pound" whipped up in an idle hour (we don't have them here!) by an employee in the Production Department of an aircraft factory gives the newcomer to this exciting business an insight into the whys and wherefores of the game. Written in a conversational manner, it is easily read and digested.

We all respect Carl Griebner, who comes to work nice and early so we may share his Los Angeles Times before starting the toil of the day. Yes, indeed, he is allowed to read it at lunch time!

HULLABALOO

By Al Leonard

The Hull Championship basketball team had their pictures taken for this issue of the *Consolidator*. All the boys but Kunkel look as though they were four points behind with but one minute to play. Kunkel has that happy (slap) smile on his face since he injured his head in an auto accident. The picture would have had better light reflection if Freddie Grossher and "Scotty" Rutherford were at each end.

Tommy Johnson says he has a chance to be a jockey at Caliente if he can lose ten pounds. How Tommy could lose ten pounds without losing a leg or getting a short haircut is beyond comprehension. Tommy has discovered that it is far better to be on a horse yourself, than to put your money on him.

Walt Hassler, King of the Hull dispatchers, claims that his newest floor-walker, Andy Lyman, is the best looking man in the plant and is ready to start a beauty contest to settle any argument. "Scavenger" Galley says he saw Andy first and warns everyone away from him.

Nick Tuevesky's little Russian colony is thriving nicely under their little glass cages.

Glenn Hotchkiss and his Hull Rod and Reelers staged a "bleitzkreig" off the shore of Coronado Islands recently and scuttled a flock of large yellowtail. Glen was high man with ten hooked. There would have been more fish caught if "Yap-Yap" Hopman, the Anchovie King, hadn't put all the bait in his sack.

It seems that the Hull Sudden Death Golf Tournaments are becoming too tough for one man to win by himself. The last two tournaments ended up in ties. Mike Brooks and Freddie Grossher won the last one by a narrow margin. Mike has been the winner the last two times. Page the handicapper!



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DRIFTING THRU DRAFTING

By Jeff Bouley

FOR years Ron Crandall has nursed a desire to do something really nautical. When he reached the age at which boys run away to sea, a thrilling Tarzan serial was on at his neighborhood theater so he passed up the chance. But all this talk one hears now of naval expansion was just too much for Ron, and he finally went up to Long Beach and purchased a small cabin cruiser. On the following week-end Skipper Crandall and his crew (Hank Wheeler) went up to sail the boat home.

All went well on the voyage until they were passing the Scripps pier at La Jolla, where they spied their wives watching their progress. Heaving to, they tried to converse with the gals but their seafaring voices were as yet undeveloped and lacked that foghorn quality, rendering conversation well nigh impossible over the pounding of the surf. Unable to understand even the gestures of the wives, Ron finally bellowed "Send us a post card!" and steered out to sea. The girls hurried dutifully to obey the orders as they understood them. When they reached the nearest phone they called the Coast Guard.

A short time later a cutter steamed up to Skipper Ron's boat and a two-inch towing hawser was heaved aboard. And this, friends, was the beginning of a beautiful friendship which lasted until 3 A. M. when the Coast Guard boys awakened Skipper Ron and crew to inform them that they and the boat were safely home.

"The fat is on the fire" is an old adage which seems to fit the situation every once in a while. Perhaps a bit envious because of the amazing pyrotechnics display on by the stress gang in their recent fire drill,

Lauren Bonnell contributed a very fine individual performance for the benefit of the boys in the loft. Lauren, who is endearingly known to his intimates as "The Crisco Kid," was crouched on a loft board explaining it to someone. As he slid down off the board he suddenly went into a very lively jig punctuated by a series of glides and dips. It developed that during the descent from the table the matches in his hip pocket were ignited and the pocket containing the burning matches and some hot money were the motive power for his antics. At least accounts, Dick Cella and Frank Ranahan, a bit abashed at not being booked on Broadway for their parts in the Junior League Follies, were starting a local *Consolidated* dancing school and were seeking Bunny for a star pupil in the rhumba.

It has been brought to our attention that Graham McVicker was really the one who carried the extinguisher to Abe Kligman's fire last month. For this inaccuracy we apologize, but with so many little squirts running around the drafting room these days our mistaken identity can readily be understood. Some other things that should bear a little further investigation, by the way, are Ken Whitney's lavishness on those gal friends, wedding bells for Johnny Valuch and George Harnack, Howard Macdonald's tattered wing tips, Chuck McCabe tossing 50-cent pieces in gaboons, George Clayton having six nails on one foot, Prince Louie Minella's evident color-blindness, Jack Treat's gunshot wound from his boy's toy cannon, and One-Reel Freel's amazing movies.

SEEING IS BELIEVING

Magistrate: So your only defense is that you were drunk when you kissed this lady. How can you prove that?

Defendant: Well, just take a good look at her yourself, Judge.

An expert is a fellow who'll tell you "it won't work." A genius is the fellow who removes the "won't", substitutes, "Let's" . . . and makes it work.

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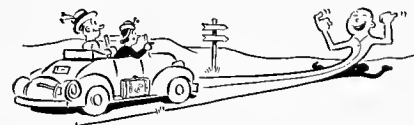
— with Bud Landis

In the autumn, many Great Open Spaces close for the season.

The mountain Fastness slows down for the winter.

The Wildwood grows tame, curls up under 6 ft. of soft, white climate.

Then along comes this time of year and Nature starts to tidy up the landscape for guests.



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Before you take to the throttle for a summer tour, here's a helpful tip: Drive into your Shell Dealer's Station and unfold your plans.

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BOWLING NEWS

By H. K. Clay

THE curtain was lowered on the 1939-1940 bowling season at the San Diego Club when some 150 keggers and their friends joined forces with *Consair* officials at a huge banquet in compliment to the victorious quint—the Experimental aggregation of pin-biffers.

Arranged by Dan Miller and Harvey Muck, the banquet was acclaimed the most successful of any similar affair ever staged in the region. The motif throughout the decorations and menu was kegling and Messrs. Miller and Muck supplied many novel ideas which won the plaudits of the guests.

In addition to the feted team which is composed of Ward Levere, Otto Peterhansel, Eddie Lang, Walter Sherwood and Russell Wright, a dozen or so local celebrities were present as honor guests. Heading the list were Mr. and Mrs. Reuben Fleet, of *Consolidated*; Mrs. and Mrs. I. M. Laddon, Mr. and Mrs. C. T. Leigh, and Mr. and Mrs. J. L. Kelley, and Preston Lockwood, of *Consolidated*; Mrs. Regina W. Coker of Sunshine Alleys, and Col. and Mrs. Clark.

Over a thousand dollars in prize money was distributed to the various teams by



Bowling alley wizards . . . Top row are the winners of the Engineers' League, the Loft No. 1 team. Left to right: Frank Learman, Phil Taber, Bill Summers, Tom Coughlin and Herb Sharp. Second row are the winners of the 14-team league, the Experimental team: Ed Lang (Navy office), Otto Peterhansel, Walter Sherwood, Ward Levere, and Russell Wright. Bottom, some of the outstanding stars. High 3-game series during the league, Frank Fields (Purchasing) 647. Second Mike Brooks (Hull No. 1) 645. Mike also took second highest average kegler with 180. Third from left is Hal Leppart highest average kegler with 182, and W. N. Liddle (Production No. 1) who startled the boys by wiping off a neat 275.

Major Fleet. Experimental, by virtue of winning top honors, came in for the Lion's share of the melon, romping off with approximately one hundred simoleons.

As in the case of the first banquet, the inimitable Irish wit, Tom Coughlin of the Engineers, presided as toastmaster and his quips kept the feast mongers in jovial mood.

After dinner the guests wound up the evening by tripping the light fantastic while those whose feet refused to behave found solace in the vestibules watching the galloping dominoes.

Following is the apportionment of the prize money for the fourteen team bowling league as announced at the banquet:

| | |
|------------------------|----------|
| Experimental | \$102.00 |
| Hull No. 1 | 88.00 |
| Engineering | 81.50 |
| Production No. 2 | 81.50 |
| Finish | 72.00 |
| Production No. 1 | 69.00 |
| Purchasing | 69.00 |

| | |
|----------------------|-------|
| Hull No. 2 | 64.00 |
| Maintenance | 61.00 |
| Machine Shop | 57.00 |
| Tank | 48.00 |
| Final Assembly | 41.00 |
| Raw Material | 38.00 |
| Sheet Metal | 36.00 |

Top individual honors for the season insofar as average is concerned go to Hal Leppart who emerged with an 182. Mike Brooks was close on Leppart's heels with 180 while Henry Myers occupied third spot with 178. Tom Coughlin carved

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an immortal niche in the bowlers' hall of fame with his 175 while Frank Cary of the Purchasing aggregation was next on the list with 172. Irving Craig had 171, Walt Sherwood 170 while Eddie Lang of Experimental had 169. Bob Wahl was ninth on the list with 168 and Harold Hauptmann was number ten with 167.

The Engineers wound up their five man season last month with the quint from Loft No. 1 taking top honors. Phil Taber, Herb Sharp, Bill Summers, Tom Coughlin and Frank Learman made up the personnel of the winning club which went through the season winning 54 points and losing 30. The team from Hull copped second honors with 48 wins and the Flap came in for third place with 47 wins.

Engineers League—Final Standing:

| | W. L. |
|-----------------------|-------|
| Loft No. 1 | 54-30 |
| Hull | 48-36 |
| Flap | 47-37 |
| Loft No. 2 | 46-38 |
| Loft No. 3 | 41-43 |
| Armament | 40-44 |
| General | 36-48 |
| Fixed Equipment | 24-60 |

Several *Consair* keglers have signed up for the various Summer leagues and will thus keep in trim for the 1940 season. A team from the Engineers will participate

in the 830 league at the Sunshine and Ben Duffy is organizing a team to take part in one of the minor leagues.

Another Engineers' league consisting of three players to a team with the club limited to eight entries is competing at the Sunshine Alleys. The novel Trio league will not stop shooting until August when many of them will enter the Sun's annual singles championship tournament.

Ted Schwarz, who bowls on the City Dye Works team of the Novice league is another keglers to win a shirt offered by the National Shirt Shop. Ted missed his mark by two pins in foretelling a series one night last month. Russell Wright of Experimental is another shirt winner. Russ won his prize in the *Consair* circuit just before the league curfew sounded.

The Sunshine management wishes to express its deep appreciation to the *Consair* keglers for their patronage and excellent sportsmanship during the past season. All Sunshine officials are in accord with Mrs. Coker that *Consair* produces a fine bunch of bowlers and they will be missed pending the opening of the fall season.

I would like to sign off for this season with a prophecy that this fall will see the biggest industrial league ever assembled on the West Coast. With five thousand men employed at *Consolidated* and with bowling going over the top in popularity there is a probability that this fall will see a fifth or sixth team league take over the Sunshine Alleys on three or four nights. Major Fleet appreciates the morale building value of bowling and is heartily in accord with keglers as one of the important athletic functions of the company. With Bill Gilchrist on the job there are going to be some records smashed this fall. Until then—adios!



U. S. private airplanes in 1938 flew over 100,000,000 miles.



A gentleman is a fellow who steps on his cigarette so it won't burn the carpet.



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WING KEYHOLE

By Browne

W. H. Armstrong will have to do his hunting in the daytime due to the fact he is coming on nights. Wonder if Army will pay off all those bets he made regarding night shift?

Jack Campbell says he was walking past the Center section nacelle jig and noticed a new addition to the fixture. Upon closer investigation he discovered Bob Elo was badly entangled and hanging by his belt.

Flash! John Petit is to teach at Vocational School. Tough luck John, it's not co-educational!

"Limey" Bartlett lost one of his daughters recently. Binnie slipped out and was married. "Limey" still has one daughter left.

Johnny "Popeye" Petit and "Barnicle" Joe Ryan, unexperienced seamen, attempted to sail Johnny's boat from Pacific Beach to Mission Beach. Before reaching their destination they became marooned on a sandbar which was a larger percent mud. If you weren't there you missed a good show. Popeye, Barnicle and boat, were mud from stem to stern!

TANK HIGHLIGHTS

By Hertbel Chappell

Ernie Backhaus has been very ill with lock-jaw, but is now on the road to recovery. We hope he'll be back with us soon. Good luck, Ernie, we're pulling for you.

News from Dan Cupid: Fred Margan, who has evaded the bonds of matrimony for some time, has finally been caught by Cupid. The wedding will take place in July. The bride-to-be is Miss Marian Heck. Good luck to both.

Why did Sid Riches change his wedding date from June to the middle of August? Getting jittery, Sid?

Don't be surprised if a Ford roars by you as though you were backing up. It may be Ted Schwarz in that hopped up V-8 he has been working on for the past three months. Watch out for the black and white motorcycles, Ted!

Good advice: The mind that borrows nonsense will never lend wisdom. Attentive listening is the main ingredient to being well informed.

SEE THE 1940 INDIANS

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SOARING MEET . . .

A group of employees of Consolidated were permitted to enjoy a week of gliding and soaring at the Third Annual Arvin Glider meet. Friday, April 12th, groups of these men left for their "Soaring Fest" held at Arvin, Calif., April 13 to 21. As this copy goes to press, each has made some showing as to his ability in the handling of ships, mostly of their own design and construction.

Sunday the 14th, Ray Parker of the Model Shop was fortunate in hooking a group of thermals, riding these for 28 miles to the Kern County Airport just beyond Bakersfield. He spent the next day soaring in cloudy and overcast conditions for four hours. It was a rough ride.

Jerry Litell of Inspection, spent most of his time working on his ship to satisfy the C. A. A. The rest of the time he was making trips over the pinnacle to the valley, then hauling his ship back to the field. Harry Comer of Tool Room, and Victor Korski of Hulls, took turns acting as navigator and co-pilot in Dick Essery's two place sailplane. Harry flew to Lebec which is 35 miles to the south of Arvin. They collected \$35 for a goal prize. Victor Korski hopped the clouds with Dick to McFarland, 5 miles short of their goal and \$25.

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THINGS THAT COME OUT AT NIGHT

By Craig

THEY say that Spring does things to a young man, but we didn't know until recently how suddenly this could happen. It seems that Ivan Minnech of Bench was taking his girl friend home after a short visit in San Diego. Ivan had started for Pasadena, and was all the way to Old Town when "Spring" got in its "licks." The result was Ivan wound up in Yuma with a wife. It's a good thing Don Cornell didn't go with him although maybe Don could use a wife.

The people who saw a man on skates racing down the main aisle one week couldn't all have been wrong. It happened that they weren't. They were looking at a young man with new ideas. Needless to say the idea rated a "red ticket" in a hurry.

Ray Kendall of Hull asks, "Why do these things happen to me?" Ray was out in the back yard practicing casting with a brand new \$3 silk line when a neighbor called him to help move a trunk. While Ray was gone his wife tried to "hook" the neighbor's cat and finally landed the washing. Ray spent 3 hours trying to untangle the line and then had to cut it in two.

When Eddie Hanzlik and a crew from Experimental worked the third shift for a week the fellows decided not to shave. The rest of the boys had something to show for it, but Eddie says he didn't shave either.

Al Blair of Spotweld had a lot of explaining to do to friend wife when she found that strange piece of jewelry in Al's car. He finally convinced her, when the lady in question claimed the jewelry. It was Jack Bryant's little girl, Patty, who put Al on the spot.

Nick Tuevesky of Hull needed another helper. George Wire agreed. Said George, "Nick, I'll get you another taxidermist." I don't want a taxidermist," shouted Nick, "I want an American or nothing!"

Grico, that sterling thoroughbred, owned by Consolidated's "Mr. Howard" had trouble at the barrier one week. For a few moments it was a question whether the horse was going to ride the jockey, or the jockey the horse. When finally untangled it was too late for Grico to do any running. Mr. Howard doesn't feel so bad, however, as Grico redeemed himself a week later.

Joe Kraemer and Tod Carter of Production, and Bob Jones of Hull are the proud "dads" this month. Tod has that special look which means a boy, but Joe and Bob are just as proud of their baby girls. Hope you guys can do a washing.

"Roll out the barrel" Busby, is so excited about his new home in Rolando Village that he has invited the whole Wing Dept. out for a Beer Bust. If the invitation includes "Poncho" Petit and his tail gang you really have an order to "R. O. T. B."

Tod Carter and Don Rasmussen wanted to play last Friday night, so when a glass of beer fell out of Tod's hand and landed all over Don, the game had only started. Came time to go home and Tod found the steering wheel covered with glue and the floor of the car covered with pepper. Any one interested in other diabolical schemes may see Rasmussen.

Steve Lenovitch of Paint, had to shake the fruit off of his fruit trees in order to let the leaves grow. Steve just bought

the ranch. George Wire of Hull wonders why he had two flat tires on the way to work when the tires only had 37,000 miles on them "Enough" Light is new third Shift paint inspector. Lloyd "first with the latest" Bender again has dazzled the boy with his new spring outfit. Even the shoes are pretty. Browne has moved to the beach, by the way, and now wears his good clothes to work. Morris "Phooster" Neason of Bench, spilled a gallon of primer the other night and then to top things off, spilled a thermos of coffee all over himself. In the bench, the name "Phooster" is synonymous with fluster.

As early as 1915 a Sperry "Stabilizer", the real ancestor of the automatic pilot as we know it today, was tried out in a Curtis boat.

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MACHINE "OIL"

By Al Pfeiffer

The passing of Pop Camp leaves the drill press with a space that is hard to fill. Unusually adept at minute drilling operations he worked with the finesse of a watchmaker which is exactly the trade he pursued as a young man in Switzerland. His tools show the well worn usage of 60 years. Infected with his stoicism we can only say: "Happy Landings, Pop!"

The Stork Transport Service worried Crist Gonzales for some time but finally consented to deliver a 10 lb. package of masculinity. What kind of a team employs 12 players, Crist? The Bert Calverts report no cause for complaint in rates for a six pounder.

That tremor emanating from the San Diego Club a few Saturdays ago contrary

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to all reports was not the prophesied earthquake, but Owen Gandee's debut into society. Tail down and nose up Owen.

Evey Davis, the Machine Shop's claimant to pugilistic fame now realizes the full significance of the term "blackout." A brown bomber passing overhead put out the lights. Cosmic ray punch?

While it may not be news, Roy Larceval is now "producing" for Production. Keep up the good work Roy!

Terpsichorean artist of no mean ability is Dick Frauenfelder. Ace man on the stag line, he will insidiously worm his way into the affections of your best girl.

Bill Hughes' enforced vacation isn't really as bad as we had imagined. To be regaled by a bevy of beautiful nurses in an atmosphere not altogether unsoothing calls for a bit of sympathy for all of us who must toil the weary hours.

We feel it only fair to warn the boys in the drill press that John Howard is a past master in the science of Criminology. Studies at Northwestern and in the school of behavioristic psychology make him a potential "G" man. You cannot evade this man.

Our friend Haddon is actually keeping his nose to the grindstone these days. Everyone we know tries to make him smile without success; fact of the matter is, he will not even say, "Chevrolet."

Hiss the villain, Jesse James Barnes, who takes fiendish delight in snapping his unsuspecting victims in awkward poses. Plague take the varmint.



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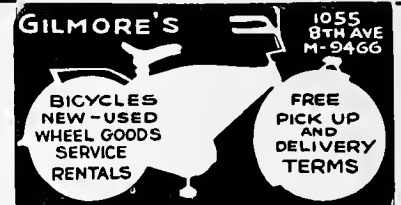
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Passmore's formula for keeping cool is a tin hat and rolled-up trouser legs. Don't worry if you can't see the connection. Who knows what goes on in the minds of mice and men?

It rarely happens that such mistakes are made, but we must admit that those Navigators' Table Light Shades do resemble funnels. Which brings to mind the fact that plans are now being formulated for the Machine Shop outing. Please refer your suggestions to the committee in charge.



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HEARD ABOUT THE HULL

By Bill Pettit

IT seems that Johnny Hopman, that all around sportsman in the Hull Dept., was in the "pink of condition" a few weeks ago. Taking an active part in one of the Hull's well known golf tournaments, found Johnny calmly hating the weather; his clubs; the general public; and himself for living. To make the day

perfect, he wound up and with perfect form drove his best pipe over the fence. P. S. He missed the ball!

The big sporting event of the year came off when the Hull Softball Team played Al Ballard's boys from Cutting. All was going well when a high fly was hit to the infield. Running like mad, George Galley, who was on first at the time, galloped clear to the home plate when he realized that there was only one out. George made it two!

"Say," said Al Clark to an attentive clerk, "did you hear what one train said to the other?" "No, I don't believe I did," "Woo! Woo!" smirked Al.

When April Fools day rolled around, some of the boys thought they might pull a fast one on Russ Kern, Hull Inspector. Nearing his desk they saw a nickel lying on the steps and many a splinter was acquired before they realized it was mailed down.

Did Russ have anything to do with that? The boys think so.

It looks like the fishing season has hit its stride in full in the Hull. Johnny Hopman claims that the best food in the world are those Ensenada anchovies. While Red Chaplin claims that the only thing you get in Ensenada is stuck in the mud!

Well, anyway, one thing should be settled this year. Do the fish or the Hull gang have more fun on these fishing trips!

Withdrawing from the last Hull Department golf tournament at the final moment, Sammy Gallaso, called the Dapper Dan of the Greens, caused quite a bit of confusion in the ranks, but was forgiven when he explained he had to make an emergency visit to Escondido. Imagine his surprise and chagrin when he encountered a few of the contestants who had stayed over to play that afternoon. And who did he have with him but that lovely "Trip to Escondido."

"This is hard to take," cried the burglar, as he staggered out with the piano.

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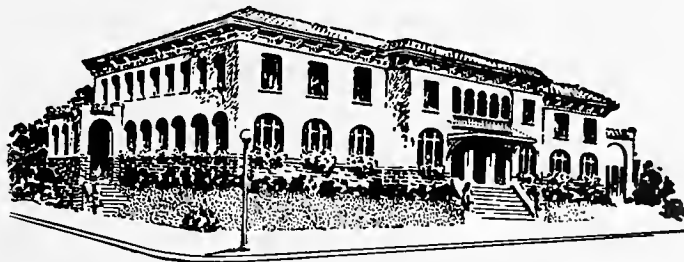
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ing their operations. For instance, it is vitally concerned with the forecast and weather data given out on the massed flights of the PBVs to Hawaii and elsewhere. Its function is to prepare forecasts of the conditions which will be encountered enroute; when rain will be met, what the cloud conditions are, what ceiling may be expected, how strong the wind and from what directions it will be blowing; all this, during a trip lasting fifteen to twenty hours and covering 2500 to 3000 miles. Synoptic weather maps are pored over in the "ready room" just before take-off, and in addition changes in weather conditions, determined from surface ships along the line, are broadcast to the planes in flight as a guide as to what to expect, or to avoid, as the weather conditions change. Thru the courtesy of this office the following sample is reproduced:

FORECAST SAN DIEGO TO HONOLULU:
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4500 FEET TO UNLIMITED VISIBILITY
GOOD SURFACE WINDS LIGHT NORTH-
WEST X SAN DIEGO TO LONG 125 PARTLY
CLOUDY CLOUD BASE 5000 FEET TOPS 7000
WIND WEST NORTHWEST 18 KNOTS VISI-
BILITY 10 MILES X LONG 125 TO 135
BROKEN CLOUDINESS TWO LEVELS BASE
3000 TOPS 4000 BASE 6000 TOPS 8000
SCATTERED SHOWERS VISIBILITY 10
MILES WINDS VEERING TO NORTH 18
TO 22 KNOTS X LONG 135 TO 145 BROKEN
CLOUDINESS TWO LEVELS BASE 1500 TOPS
3500 BASE 6000 TOPS 8000 VISIBILITY 12
MILES WINDS VEERING TO NORTHEAST
18 KNOTS X LONG 145 TO 155 PARTLY
CLOUDY SCATTERED CLOUDS AT LOW
AND INTERMEDIATE LEVELS CEILING
MOSTLY UNLIMITED VISIBILITY 15 MILES
WINDS VEERING TO EAST NORTHEAST 20
KNOTS X PEARL HARBOR PARTLY CLOUDY
TO CLOUDY WITH SHOWERS CEILING 2000
FEET CUMULUS TOPS TO 12000 VISIBILITY
12 MILES EXCEPT IN SHOWERS X FLIGHT
CONDITIONS AVERAGE TO GOOD X
FLIGHT TIME 18 HOURS X

THE young lady who wrote, "Gentlemen Prefer Blondes" may just have wanted to start an argument, but that Aerographers prefer blondes, can be proven. As a matter of fact, for the eleven years that the Aerographer at North Island has been making the daily flights to altitudes of between 15,000 and 16,000 feet (weather permitting) he has invariably carried aloft a lock of blonde hair.

How come that this startling fact about the preference of aerographers being definitely on the blonde side was discovered? Over at North Island the other day to get a bit of information on the Alaska flight of the XPB2Y-1, it was learned that the worst weather on the whole flight was right here in San Diego. That

AEROGRAPHERS

didn't seem fair to the Chamber of Commerce, and likewise it suddenly dawned, that one of the most important things affecting the intense flying activities at the field, was simply the weather. Therefore, the Aerographer's office would be a good place to go to get some dope on the all important weather.

The first discovery on the road to finding that Aerographers prefer blondes was that there are two "weather stations" in operation on North Island. One belongs to the Aircraft Scouting Force and deals most intimately with the weather affect-

This station, complete in itself, belongs to the Scouting Force, and can pack up bag and baggage and move with the Force should a change in the seat of operations be made.

Thus it does not interfere with the established North Island Naval Air Station Aerological Office. This office provides the weather data for all the station planes, Aircraft Battle Force planes, and the Marines. From this office, for the past eleven years, daily flights to between 15,000 and 16,000 feet have been made, to catch a bird's-eye view of the weather aloft, and a written record of the conditions encountered, thanks in part, to the preference aerographers have for blondes.

"Cloud effects courtesy of plant photographer Otto Menge and Dame Mother Nature."

Lieut. W. E. Oberholtzer, Jr., U.S.N., Naval Air Station Aerological Officer, in charge of the operations, very graciously detailed an officer to explain the workings of the instruments which enable the men to make their forecasts and to gain a picture of what may be expected of the weather in advance.

Each morning along about 5:00 a.m. the Chief Aerographer has to roll out of a comfortable bed and make ready for his flight which will last about an hour. At a little before six, he fastens his Aero-graph on the plane and takes off. Then he heads upward at a rate as near 300 feet per minute as is possible. He is in radio voice communication with his ground office and as he circles upward he reports the condition of the atmosphere as to clouds, haze, visibility, height of ceiling, thickness of clouds, etc. Meantime he notes his altimeter and takes readings from his strut thermometer. The Aero-graph, by clockwork is meanwhile plotting a complete and continuous record of altitude readings, temperature changes and moisture variation. These three factors in the measurement of the atmospheric conditions have an inter-related influence on each other, and certain corrections must be made from these records in order to gain the true picture. The strut thermometer and the altimeter readings are simply an additional check.

In some localities, "Radio Meteorographs" are employed for this work. These are small free balloons which carry aloft a small radio which transmits moisture, altitude and temperature measurements as the radio meteorograph ascends, and these are intercepted from the ground. The

ilar to an altimeter, except that it measures directly in millibars, or units of pressure, which are more convenient for the work than inches of mercury or feet of altitude, (neither of which is direct measure of pressure).

The third recording instrument accounts for the moisture variation. It is here that the blondes come in, for the instrument depends, for its operation, on the changes in length that take place when human hair comes in contact with more or less moisture. It seems that blonde hair is far more susceptible to such variations, and much more uniformly so, probably due to the lack of pigment. So, should you hear a blonde say that the moisture in the air makes her hair "unmanageable," agree with her most heartily. The aerographer will back you up. If a brunette makes the same kind of a remark, agree with her also, and keep what you know about the aerographer's preference . . . completely to yourself.

Due to the peculiar atmospheric conditions that exist at San Diego the aerographers at North Island had to do a bit of altering to the standard Aerographs. It seems that the upper air encountered often runs into an "Inversion" or reversal of temperatures, and this, combined with very dry air aloft would sometimes make two of the three instrument arms with their recording pens, get hooked together. Under normal conditions encountered with aerographs elsewhere in the world, the three pens would work more or less in the same direction across the face of the rotating drum and its recording chart, and keep a good distance apart. Here, however, it was found necessary to reverse the ac-

tion of the moisture recorder in order to keep the arms from locking with each other.

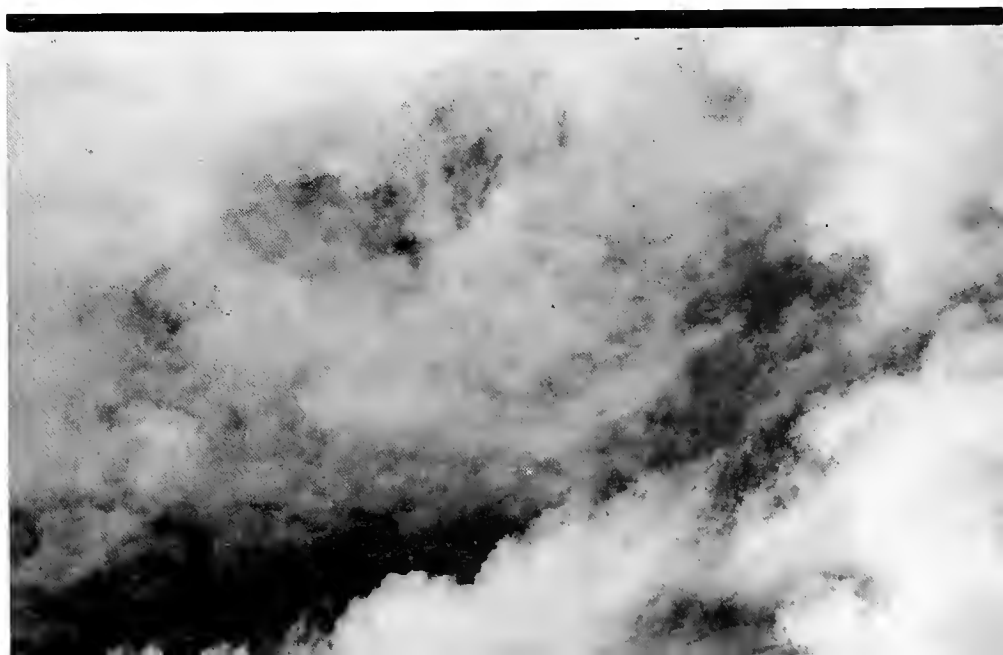
The inversion is encountered on an overcast day, or a day with a so-called "high fog." Going steadily upward, the temperature decreases and the moisture increases until maximum moisture content and a low temperature is reached at the ceiling. Immediately above the clouds the air becomes very warm and the moisture content drops considerably. Then as the measurements are made on up it is generally found that the temperature gradually decreases with height. Normal temperature inversions encountered run from 6 to 12 degrees Centigrade, though on rare occasions as much as 20° difference is encountered on going thru these clouds.

No longer does weather forecasting have to do with the immediate vicinity of the aerological office: modern flying (witness the flights of the PBVs and the XPB2Y-1) takes in thousands of miles. The North Island Naval Air Aerological office, with its flights 7 days a week and constant 24-hour duty for checking on the weather, has a tough job. It is particularly tough because there is little information coming from off the ocean upon which to base a forecast. It's explained by the Chief Aerographer as being a job of sorting: like having a whole mess of all sorts of potatoes coming down a chute at you. You haven't much to go by as to what to expect, while your fellow-aerographers at inland stations have pretty well had the potatoes sorted out for them. They at least know about where storms are, how fast they are traveling, and in what direction.

PREFER BLONDES

Radio Meteorographs go to much higher altitudes than the Aerographs are carried aloft by the aerographer, and hence give a greater range of data, but they are subject to instrumental errors which are not so easily checked and corrected. The flight aloft with the Aerograph has the advantage of an observer along with the instrument to check by observation, and to add in the valuable notes of visibility, etc., which cannot be ascertained from the instruments alone.

Contained in the Aerograph which is carried aloft is a bi-metallic thermometer which registers a continuous record of the temperature changes. Another measuring instrument also recording continuously, is the pressure recorder. This is quite sim-



PLASTER SPLASHES

Johnny Debs knows now that a little Willys Overland won't go through a big tough bus. He tried it. Poor Willys!

We are all hoping to see Geo. Abdo back soon. Good luck and a speedy recovery pal.

Lou Barkuloo takes his fishing too seriously. When that enormous half pounder flipped off the hook, he dove in after it. Poor Lou is now in a cast with a broken neck. Good luck, and a speedy recovery. By Boyle No. 3713.

Since Red Boyle bought that new "Chevy," a certain little blue-eyed blonde out in East San Diego seems to be getting quite a rush. His new theme song is "Between Madison and Adams . . . on 32d. St.!

By "Shinola" Burns.



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Basketball champs for the 1939-40 season, the Hull team. Kneeling left to right: Norm Heckeroth (F), Tommy Johnson (F), Ellis Bell (F), Bob White (G). Standing: Freddy Grossher, Mgr., Scotty Rutherford, trainer; Jim Loob (G), Sam Shepard (C), Vincent Gilmore (C), John Kunkle (G) and Glenn Hotchkiss, Foreman.

BASKETBALL WINNERS

By "Brad" Bradshaw

The Hull Department hoopsters recently terminated a 46 game schedule of sensational basketball climaxed by a 59 to 29 playoff victory over the Night Production team to again emerge champions of the *Consolidated* League for the third consecutive year.

The team coached by Fred Grossher, popular sportsman and leadman of the department, made a very impressive record in competition with the top notch teams of the City League, Shop League, Army and Navy Service Quintets and a seven game schedule in the A. U. U. In Shop League play the Hull lads were unbeaten and only the Tank team offered serious competition.

Sparked by the brilliant play of their diminutive forward and all around athlete, Tommy Johnson, they boasted a roster of such ex-high school and college stars as John Kunkle, Sam Shepard, Bob White, Norm Heckeroth, Ellis Bell, Vince Gilmore, Scotty Rutherford and Jim Loob. Mid-season injuries to Johnson and Kunkle as well as the heavy schedule undertaken played a large part in keeping the lads from winding up on top of the A. U. U. League, according to their followers.

In appreciation of their fine play and

good sportsmanship each member was awarded a gold basketball contributed by the plant management. A large and faithful following of ardent fans were on hand for each encounter and were always treated to four quarters of exciting and hard fought basketball, win or lose.

Consolidators should feel justly proud of these stalwart athletes and the splendid record they have made in face of the toughest opposition.

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CONSAIR SPORT VIEWS

By Matt Wielopolski

The night Machine shop team is trying very hard to win the bowling league still under way at the Elk's, but so are the other five teams. Larry Yeoman, Lou Miller, George Wire, and Joe Havlik, bowling for different teams, are still after the title of "High Average Bowler."

Vic Racko, machine shop manager, and "Red" Basil, leader of final assembly, have put their heads together for their softball team's welfare. Prior to, and in conjunction with the opening game of the *Consairst* Night Softball League, the players are taking wives and girl friends to El Monte County Park on May 5th. You guessed it. The ladies are bringing the food for this basket picnic, but the boys are bringing the ale. (Hail, hail, the gang'll be there!) Incidentally boys, is the

ball game to take place before or after the fill? Well, may the best team win!

In the spring a man's fancy turns to "Love." Fifteen-love . . . Thirty-love, and the next two points give him a love game. So, in his favor with one-love in games, he competes in *Consolidated's* Fourth Annual Tennis Tournament. Watch the bulletin boards for further details, happenings and results.

DRAW BENCH BENDS

By W. Fink

Chester Sheppherd, who has had a minor operation, is reported to be recovering favorably, and will soon be back to work.

We are glad to have Ed. Aubuchon with us again. Ed. received a broken leg when hit by a automobile.

Wm. Ladd, who returned to the Draw Bench after an absence of about a year, is warmly welcomed by his fellow workmen. After a week in the department, Willie got the urge and trotted down to Yuma for the usual ceremonies. Congratulations, Willie.

Red Robbins, assistant foreman, has been transferred to the night shift temporarily. His absence is greatly noticed on the day shift, and we hope that it will not be long before we see his cheerful smile and hear his hearty laugh on the day shift once more.

The Draw Bench Dept. baseball team under the capable management of Ernie Krienkie is reported to be well on its way to a successful season. With such outstanding players as Joe Friel, Ralph Way and Ryland Graves, we expect to give all teams in the shop league a good run for their money. In 20 practice games the team has lost but one and we consider this a fine start for the season.

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ANODIC ANECDOTES

By Bert Naseef

Two Gun Jack Orr was elected the new softball captain, and has a choice of the following players: Bill Baker, Ted Lohman, Geo. Smith, Carl Johnson, Don Kesler, Red Ramsey, Wally Miles, Roy Grider, Harry Coyle and Bob Warner. Under Jack's leadership they should go places this season.

Anyone interested in capturing that "youthful figure" should pay a visit to the "Anodic Turkish Bath" . . . O. F. Stedley, Prop.

Harry Coyle decided to give up the Owl's shift, and go to work for a living in the days. Russ Haynes, successor to the job, was asked one evening by his lady friend, "Why don't you sleep nights?" . . . Harry Coyle.

We are glad to welcome back to the Anodic Department, Harry Parker, who has been away for two years. Harry is the proud father of an 18 months' old baby boy . . . Wally Miles.

Ted Lohman and Wally Miles worked overtime one Saturday, and came to work on Monday with a new car each. It's a good thing they didn't work Sunday, or they probably would have brought home the "China Clipper"! . . . David Mann.



This photo clearly indicates that the Easter Bunny apparently likes to treat everybody in proportion to size when he makes his calls. Since this appears to be true, Consolidated Aircraft would call for an extra special splurge in the way of an extra big Easter egg job. And here it is. At least, this is what was found near the finished parts stores on the Monday following Easter Sunday. The boys from the plaster shop, accustomed to turning out a really polished job, couldn't resist sort of smoothing up on what the Easter Bunny had left, and so that's how they came to be in the photo. Shown working on these colossal "eggs" are: John Debs, "Red" Boyle and Dave Klinger. The "eggs" are really special plaster forms for making sand molds, which are used in the making of drop hammer dies.

WEDNESDAY NITE MERRYMAKERS

Say You Saw It In The Consolidator!

WANTED: More and merrier members to join our Wednesday Nite Dancing Club.

We have the organization well on its merry way under the able guidance of our President Maestro, Wilbur McKinney, and his body of funmakers, Tom Stromie, Vice President; Maxine Bennett, Recording Secretary, and Lois Campbell, Treas.

Our education along the rhythmical lines includes the Waltz, Fox Trot, Tango and Rhumba. Dues for the evening are reasonable and gosh, fellas and gals, who knows, you might even turn out to be competition for Ginger Rogers and Fred Astaire. Just think of that!

You may bring a guest along, other than *Consolidated*, so let's all make a date to meet at Hemphill's Studio next Wednesday night and bring your dancing feet.

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TOOL DESIGN TIDBITS

By Maguire

Early summer is here, and week-end trips to the back country are in order. Yours truly made one last week, through Ramona and on to "Inspiration Point." On a clear day, one can see across the valley to the Salton Sea, and beyond. The point rises over a thousand feet above the desert floor, and without waxing poetical, the point is well named. There are several nice places to eat along the road, or a picnic lunch in one of the nearby canyons makes a swell outing.

Low Shirley passed cigars around, and was duly congratulated on his marriage to Miss Ruthanna Hellman of Topeka, Kan. They were married in Yuma, and are now living at 4983 Del Monte Avenue.

Our Saturday morning fashion show, led by M. "Gazamo" Ekdahl in an ensemble of aquamarine (without ruffles) is drawing the attention of "sportsmen" all over the plant. Close behind M. Ekdahl are such notables as Messrs. Roy Smeltzer, in (I'll call it Red), Le Maire in two-tone blue, Ed Gurling in blue and green (or something) and Ray Peters, Grant "D. A." Cline, Jerry Kick, E. L. Minch and Charley (Coyote) Wills, are all done up in the latest pastel shades. Very nice, boys, but don't let it rain. If it does, you'll look like a misplaced rainbow.

Glad that Marcella Holzman is back, and in good spirit, and sorry to say Bob Hyder and Ed Gurling have gone out to the T. R., but wish them luck.

Goethe said, "Let everybody sweep in front of his own door and the whole world will be clean."

COUGHLIN'S COUGHINS

The Engineers' Bowling Banquet was held at Emerald Hills on Sat., April 20th, and a good time was had by all. Speakers were made by all captains present; a beautiful floor show and dancing lasted until the wee hours of the morning, so all in all everybody had a good time.

The Engineers are having a summer bowling league of three men on a team, and eight teams in the league; this league will continue for 14 weeks and the winners of same will receive trophies.

"I'm fed up on that," remarked the baby as he pointed to his high chair.

"When a woman is in a hurry," says Highstone of Experimental, "the best thing to do is to get out of her way." Who also adds that he can't be a successful columnist because he has to dip his pen too often!

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PRODUCTION MINUTES

"Brad" Braushaw

RECORDING the highlights of the month from an upright position has convinced me that I am not only a "ten-foot" at riding the range but can apply it to a "broader meaning," after that Sunday jaunt over the "Camp Kearny trails" with the "Consolidated Boy Rangers."

It was great fun but that "rocking chair" under Bob Passenheim looked mighty good after the first hour. Bob would have saved the stables money by leaving the "nag" at the dump heap as it will never get out that far again under its own power. Les Matusek was singing "Blood in the Saddle" as it was never sung before—It was his blood. Tom Pitts had a little edge on the fellows, being larger than the horse, and Lloyd Bender slowed

up the trip by unmounting so often to "rest his feet"—claimed the stirrups were too long and he even had one of those "sissy" English saddles—which further proves he's educated. The "Lone Ranger" in the crowd was Delmar Drake, who held no choice in the matter if old "Dynamite" wanted to do a little exploring. We had a "Cain" along also, but he was very timid and seemed plenty glad to be "Able" to hang onto the leather. Willard Luppke, Ted Anderson and Marte were others who were "creaking" through the shop Monday and wondering how a horse can be so hard after eating all that soft hay.

Joe Maloney must have had a happy married life or he would put his boys wise. George Craig tied the knot the hard way and took Myrtle Sechrist on a long-term Contract—as if we didn't have enough wars going on now. And on top of this when the "Fullers Nightmare" on his upper lip turned out such a dismal failure, Joe Kraemer was finally able to shout "Today I yam a man" as "Sandra Jean" eight pounds of joy, became a member of the household.

This is a fish story that really happened as "I was there Charley," and it will prove that "brawn will win over brain" when you learn that Bert Gimber won the "jackpot" with the largest yellowtail. It is also the reason for the "cat convention" back of Glenn Hotchkiss's home—waiting for the old boy to toss out another fish head from the eight he brought in. The convoy that met and conquered about fifty yellowtail on their own "school grounds" consisted of Bourdon, Coykendall, Hartmayer, Lang, Biehl, Kendrick, Hotchkiss, Gimber, Drake, Dormay, Ambrose, Paul and Fred Brady, Drissell, Hopman and Grauffreteau, each bringing in a fish as well as a good portion of their stomachs, although a little out of adjustments. All the fellows were Consolidated employees except Pierre Gauffreteau, a representative of the French Government who decided you did not have to sail all the way across for excitement. John Hopman was not satisfied with his catch so took home a bucket of "bait" for "sardine sandwiches." Coykendall and Hart-

mayer commented that Leo Bourdon was a "changed man" after he wound himself into a net when his reel came off bringing in a big one and then did not throw rod, reel and Leo overboard, as he would have in days gone by.

During the month, our "Boy Scouts," Bob Mussen, Henry Golem and Bill Liddle, went week-end camping and slew a rattler in heroic fashion. Golem ran over it with his "station wagon," Mussen shot it full of holes with his "squirrel gun," and Liddle retrieved it after sundown and its "tail stopped wriggling." Oh a "second class" badge and jackknife for each of these young pioneers. Those Gandee boys from the "snake state" would have caught its head between their toes and taken it home for a pet.—Kel Aiken hauls passengers to work and keeps 'em waiting a half hour after quitting time and gets by with it. Right—they work for him—what would

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you do?—The greatest miracle I encountered during the month was LaVerne May playing ball and "sweating" without a single "cold one" in the ice box.—"Sandy Foulbaum" tells me the hardest mathematical problem he has tackled was trying to divide a yellowtail among sixteen hungry engineers.

Speaking of babies, Eddie Generas is still offering enough sales resistance to keep from buying that "dilapidated perambu-

lator" from Roy Coykendall. A few more weeks, Ed, and the baby will be walking and remember what that "meat chopper" he sold me (without a peddlers license) did to my face.—I failed to convince Jack Mulroy that a good ocean fishing trip is just what he needed to get his stomach in condition.—We learned that a "tub" and "lawn mower" were used to get that "Baby Dumpling" haircut effect that "Tiny" Peters of Tool Design is sporting.—Misses Campbell, Brink and Roberts became very interested in the "dimpling" operation on a process card and were all for tying on a "traveler" to see if it would really work.—Ben Keigle is mapping his campaign for President of Pacific Beach C. of C., but Jim Eisman contends he is better fitted for "Fire Chief" or "Kite Flying Supervisor." Jim's "moocher special" cigarettes would be good vote getters.—Lou Loyko says it took 2 and 1/2 cars to teach his wife to drive.—Owen Stockton thought "Margie" had jilted him when he heard she saw a physician about "getting a wart off her hand."—Amsley Phillips did not get married and those pots and pans were not a "shower," but plane equipment.—Larry Boeing has gone in for water sports and is using ice cubes in his highballs.—Lou Miller's latest economic idea is "scaring" his wife for reducing purposes.—Charley Hibert finished his boat two meals ahead of the termites. "Chuck" says it can always be converted into a "bait container."

With all the fish being caught by *Consolidators* that theory about "brain food" must be a lot of "hooley."—Milt Hangen is doing a swell job boosting the roster of the Rod and Reel club.—The foreign powers have competition in their desire for supremacy of the airways by Bob Robertson's and Bert Freakley's "Eagle" membership drive feud.—Jim Mussen, when asked why all the "hustle and bustle" lately, replied, "I'm subconscious about my work when Bert is away."—I was humiliated at Dave Arnett's home recently when

his wife offered me a glass of water. I was "thirsty" not "dirty."—I hear that when "Scotties" Doig and McCartney were "a'courtin'" they economized by using the "love light in their eyes for illumination.—Tom Jones has checked everything except the "bags" under his eyes and left for Buffalo. Good luck Tom, we will be seeing you next "long underwear season."—Several of the fellows who attended that famous "Stag" tell me they tried to cover up everything" to keep within the law.—If you happen to stumble into Dick and Ed Hager roaming around at night

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just remember the wives have gone East, which leaves the homeplace mighty lonesome and barren.—Don Drissell has been called "drizzle puss" many times but never has it fit him so well as on that ocean fishing trip.—"Pappy Yokum" Holcomb sez, "I'm gettin' dern tired bathing in the wash basin of the men's room, so am going to insist on "two barrels" of water for "Suncrest" each week.—Hal Leppart, Eddie Jones and Frank Meer were other *Consolidated* bowlers who "done their stuff" in the city tourney. They claim it's been much easier to keep out of the "gutter" since they stopped bowling in the basements of the Buffalo saloons.

The "releases," "Mag" St. Clair and George Friend, have affected in the past few months, make Houdini an amateur.—Steve Powell, by getting his work orders mixed, has developed a "miracle wing," but we suppose Jim Wainwright will get credit for the design.—I should for "muffing" the orders.

BOWLING 'EM OVER

By "Brad" Bradshaw

Purchasing Department's five man bowling team copped second place in the 799 Division of the City A. B. C. tourney held recently at the Bowling Academy, to again bring *Consolidated* into the sporting limelight.

The team composed of Paul Hoch, Frank Fields, Ed Jones, Frank Meer and Frank Carey rolled a score of 2814. Hoch covered himself with more glory by taking fourteenth place in the singles with a 622 score and teamed with Roy Coykendall to land the second place doubles title with a combined 1201 gross. Coykendall gained a tie for the fourteenth singles spot and Carey finished nineteenth with a 609. Fields and Jones tallied 1192 for seventh in the doubles event.

Not satisfied with these awards Hoch and Coykendall's 1201 score was good for a special prize for being the closest to 1200. This affair was the most important bowling tourney of the year and the Purchasing team achievements were scored against the best bowlers in the city. Cash prizes and medals were awarded the bowlers.

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Badminton Stars; Left to right are: Louie Grant of Loft who won the Class B singles from Bergman in the finals. Jim Williams of Tool Design and E. C. Terry of Loft who won the Class B doubles from Sterringer and Holsten are in the center, and J. D. Santone on the left, who teamed with Martin Mendez, won the Class A doubles from J. Lockwood and James. Santone's Partner Mendez was the winner of the show, but either because he was too bashful, or likes his sleep better (he is on the night shift) he didn't show up for the group picture. Mendez won from Byrne Billing in the final game, and thus became the outstanding Badminton star of the tourney.

BADMINTON

The Consolidated Badminton Club's second annual tournament has just been completed. Martin Mendez of Drop Hammer stole the show by winning the Class A singles from Byrne Billing of Engineering in the final match. Mendez teamed with Santone to win the Class A doubles from Lockwood and James in a very exciting series of three games. Grant of Loft won the Class B singles from Bergman in the finals. Terry of Loft and Williams of Tool Design won the Class B doubles from Sterringer and Holsten in the final events. The trophies and medals were all donated by Wilbur Folsom and his cooperation is greatly appreciated by all. * * * All players are encouraged to come up and play with our crowd each Friday night. Your complete cooperation

is necessary for our holding reserved courts for you and your party * * *

We are looking for a good turnout of enthusiastic players from which we shall choose our teams for the City League. We finished third and fifth respectively with our No. 1 and No. 2 teams last year with 13 teams competing for the championship. We hope to make an even better showing this year with the new talent and the splendid strides our more experienced players are showing. All employees and friends are invited to play with us every Friday night at the Municipal Gym, from 6 to 11 o'clock.

The committee: Terry, Loft; Lockwood, Production; Billing, Engineering; James, Welding; Henninger, Accounting; Gilchrist, Employment.

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Second Boaster: And I started in life without even a pocket.



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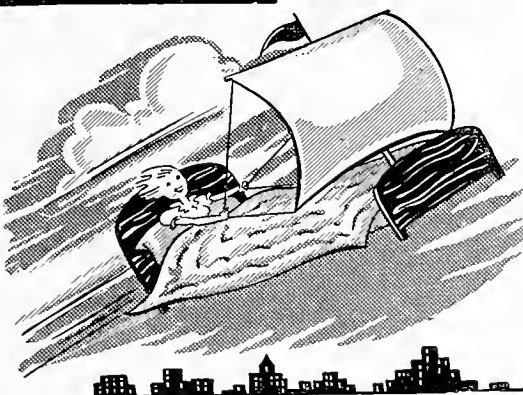
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DESERT TREK

By Don Driese

In Claude Bissell's station wagon, on the morning of Sunday, March 10, six intrepid wing department adventurers at 6:30 left San Diego for an all-day trip to the desert. The personnel of this venture consisted of Bissell, C. Hutchinson, G. W. Bunn, W. C. Gish, G. O. Plunkett, and of course, the one and only, A. R. McGhee.

It was at Julian that the back-to-nature

movement came to an abrupt halt. Until their arrival all the group had been loud in their praises of fresh air, sunshine and exercise; but the icy wind which rushed thru the mountain village sent all the "nature lovers" rushing into a smoky hamburger joint. For the next half hour the only sound was that of hot coffee being guzzled.

Leaving Julian the freezing pioneers went to Banner and from there to the old stage coach station at Vallecitos.

At the Vallecitos station is the grave of an old-time gambler and it was around this grave that the hardy *Consolidated* men stood, all shedding silent tears for the long-departed gambler who had developed a fast card draw but neglected the equally important fast draw with a six gun.

From Vallecitos, the pioneers (all of whom had sworn-off gambling) drove to Carrizo where, as another object lesson,

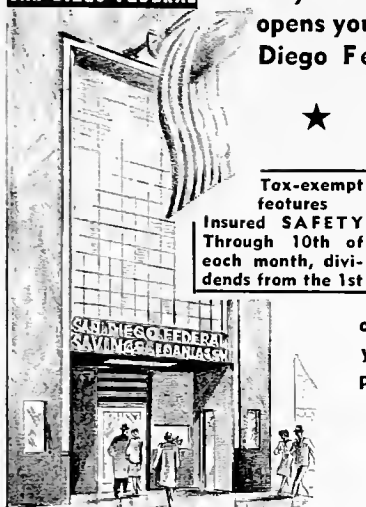
Claude Bissell pointed out the grave of a horse thief who died from that common Western disease—lead poisoning. After paying silent tribute the now slightly weary pilgrims went to see the pertified trees and beds of fossilized sea shells near Carrizo.

By noon the entire crew had joined in a plaintive chant for food.

After lunch, the gang hiked for a couple of hours. See page 3. The marching order was interesting. Leading the group were the four "strong men"—McGhee, Plunkett, Bunn and Bissell; next, was the second group (Gish); and then, so far behind that all he could do was take pictures of the leaders was the almost exhausted "Hungry" Hutchinson. (It might be interesting to note that McGhee was with the first group only because Plunkett and Bunn all but carried him.)

It was a silent group of hikers who re-

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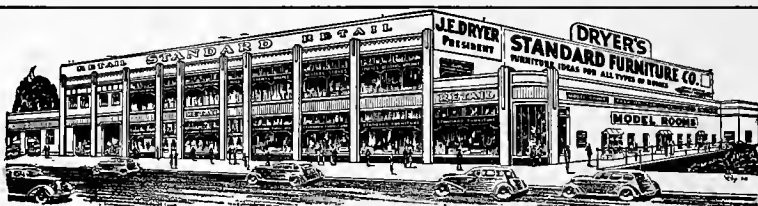
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Fifth Avenue  at Broadway

turned to the car and on the return to San Diego, the silence of the exhausted pioneers was indeed impressive. Reaching home about 8 o'clock that evening all agreed that the trip was a great success and the group began to lay plans for their next trip into the desert.

GUN CLUB X'S

During the month of February we had 19 shooters competing for medals in the pistol division of our Club. The medals were won as follows: Class A—H. J. Schnaubelt; Class B—H. M. Prior; Class C—J. E. Schreiner.

We had 14 competitors for rifle honors. Due to a strange coincidence the same men took the rifle honors as did the pistol honors, in the same order. The month of March showed quite a decline in attendance but the competition was just as keen. The medals for pistols were awarded as follows: Class A—H. Von Meeden; Class B—Chet Sheppherd; Class C—Mrs. C. C. Sheppherd. The rifle medals were issued to: Class A—Henry Myers; Class B—J. E. Schreiner; Class C—C. A. Phelan.

At this time we would like to again invite any newcomers to *Consolidated* who are interested in shooting to attend our regular shoots held every Wednesday night at the Stanley Andrews Co. Range. The night crew shooters hold their weekly shoot on Wednesday morning at 11 A. M. at the same range under the capable leadership of our Vice-President H. J. Schnaubelt. Any night crew men who are interested may contact "Lightning" in the Wing Dept. Day crew men may contact Chet Sheppherd (Draw Bench) H. M.

Prior of tool room (located in PBY Hull Dept.) J. E. Schreiner of tool room (located in Hull Dept. No. 1), Johnny Rosmond in Tail dept., or Henry Myers in the Tool room.

H. M. Prior,
Secretary-Treasurer.

TYPOGRAPHERS MUST HAVE THEIR FUN

Two lovers walk upon the street,
They walk like this for love is sweet
Now, wed, they walk the self-same street,
She's here He's here.
It's 30 feet.

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From Private Fliers Association Bulletin.

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CONSAIR FLYERS CLUB

By Barney Farley

Events have been piling up throughout the month. Most important of all, to us, is the fact that we have ordered our first airplane a new Piper Cub 50 h.p. trainer. All there remains for us now is to wait until it arrives—then commence operations.

To one, outside of those directly connected with aviation, flying clubs may seem inconvenient. Some wonder how one can pile 20 members on one ship and expect an individual to get any flying time. We can say from proven facts that there is plenty of time for all. Each member is guaranteed one hour a week. Sometimes his quota amounts to several hours.

The aim of Consair Flyers is to turn out good pilots—fellows who aren't just fair weather pilots, but the type who will be able to fly under all conditions. Under the able guidance of our instructor, Lou Loyko, we hope to attain such a goal.

SHEET METAL NEWS . . .

By H. B. Millman

Mr. and Mrs. Oscar Gustav Nelson are proud parents of a baby girl born April 1. Weight 7 pounds, 5 ozs.

John Kelley should have some very important news next month.

It's been reported Eddie Raymond is using a new brand of hair tonic which gives him that sheik appearance.

* * * It seems Roy Bramblett has a new hobby, baking pies. The boys report they are just like mother used to bake.

The boys that ride with Al Hutter have been getting plenty of exercise every night lately . . . pushing the car up the hills.

Ed. Birt, Roy Weber and Mergy Hatch all stepped off the plank in the past month and got married, and E. S. Joseph will have made leap year before this goes to press. All the boys from the cutting department wish them good luck.

We hope Johnny Kessler's wife comes back from her eastern vacation soon. Probably it will eliminate that far away look of his. He is also getting tired fixing his own meals (doughnuts and coffee).

Jimmy Carr is back with us again as clerk for Eddie Raymond. Glad to see his smiling face after his long absence.



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THE EL CORTEZ
SAN DIEGO, CALIFORNIA

Geo. Jurard has signed the pledge. Things will be much quieter from now on over in Coronado.

R. Hibbs is eating Wheaties every morning now for breakfast for pep and energy. Taylor reports a big improvement.

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Do You Know . . .

The Pick of The Trees



Five Ocean Rafts of logs moored in San Diego Harbor, containing 30 Million board feet of lumber to be manufactured at our Mill in San Diego. Width, 52 feet; Length, 1000 feet; Contents, 6 million feet; Binding chains, 200 tons; Depth below water, 24 feet; Height above water, 12 feet; Towed 1000 miles from Oregon.

- That Benson Lumber Company owns and operates the only saw-mill in Southern California?
- That Our annual payroll of \$250,000.00 is spent right here in San Diego, and that our annual taxes of \$120,000.00 are a great benefit to the City of San Diego?
- That San Diego's "Heaven on Earth" climate is IDEAL for air-drying lumber, conceded by government authorities to be the best method of drying lumber?
- That San Diego homes are protected from termites by pressure treated lumber produced locally only by our company?
- That Financing service is available through the loan and escrow department of this 33 year old company?
- That visitors are welcome to see the lumber mill in action?

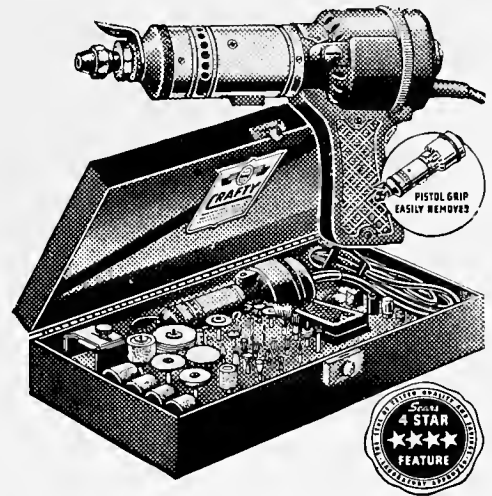
• **BENSON LUMBER CO.** •

Sears' "Crafty" Rotary Electric Tool

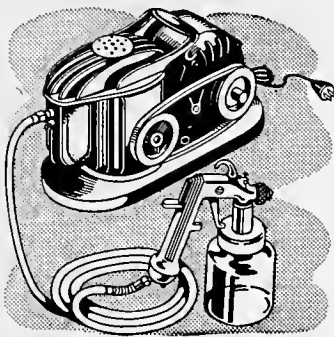
Nothing like it at this price, or any other price, in all America. The "Crafty" rotary tool has 50% more power than comparable units and hundreds of uses! Complete with 34 accessories. It's a whole workshop in itself.

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26⁹⁵

\$5 DOWN EASY TERMS

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TUBE BENDING

By G. A. H.

Maybe the "Boss" can get some work out of Slim Franklin now that he has the rest of his family in San Diego with him. * * *

What happened to the system of one of the boys who was playing the races at Caliente? We hear he lost. * * *

It was heard, by the "Grapevine Route" that the "Fire Dept." turned out very strongly to greet Norman Freakley at the end of the "Bowling Tournament." It was hinted that a couple of Police Officers greeted him also. * * *

Ham Molleur wound up the "Bowling Tournament" in good shape the 29th of March, a little ahead of time, but we understand that he really made a good time of it, along with Capt. Lesser and Al Ballard. * * *

The boys in Tube Bending passed the word around that it was cigar time on the "Boss" again, in fact things seemed all O. K. to the gang when Bert Freakley even stayed home all day one Tuesday, but the light dawned when it was announced that the great event made Bert a "Grandpa."—Grandpa Bert and no cigars. Bert reports Mother and son doing fine, also grandparents. * * *

METAL BENCH

All the boys of the Metal Bench send their best wishes to their foreman, George Young, for a speedy recovery from his illness.

A sure sign of spring: Rocheville has removed his sweater.

Teddy (Begonia) Edwards seems quite interested in motorcycles. He spends his noon hour among them.

Old Man winter drove Charlie Trippi out of Buffalo. He is back working and enjoying the California sunshine.

Time doesn't mean a thing to Al. Opolski. He can fix it regardless what shape it's in.

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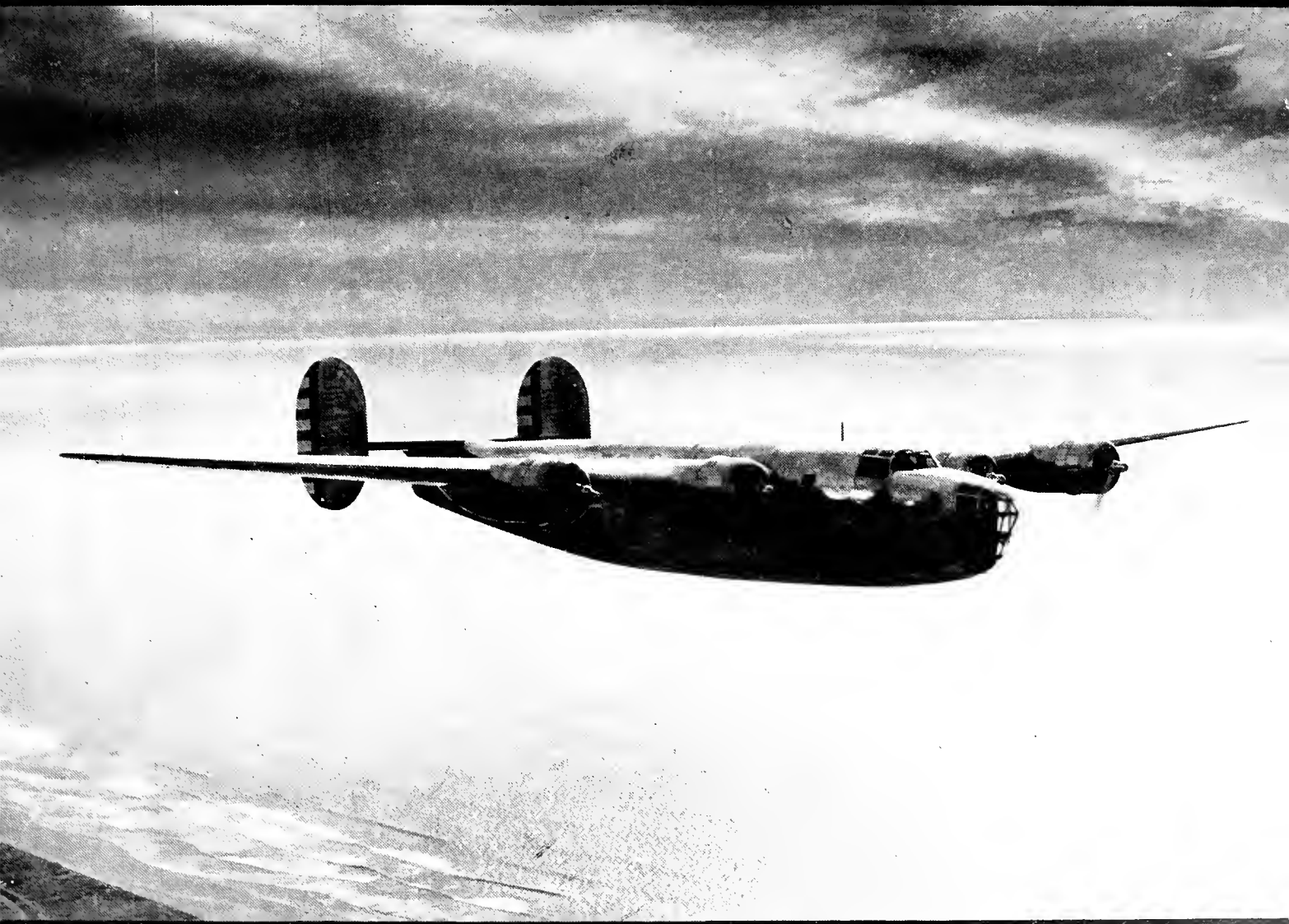
How NOT to wreck your car:

Last year an aircraft worker named Frank was on his vacation, up in Montana. He was bringing his '38 Chevrolet in for a landing at Billings, when some local yokel whirled out of a side street. First thing the yokel did, after the crowd dispersed, was to slap an attachment on Frank's Chevvie. Frank was insured—but he soon discovered the company had no quick facilities for issuing a Release of Attachment Bond. He spent the rest of his vacation time (and money) lifting that attachment. A **good** insurance company would have had a representative in Billings. And he would have lifted that attachment in five minutes, sending Frank on his way. MORAL: good insurance is cheaper than "cut-rate" insurance!



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HOT SHOTS FROM WELDING

By Willie Winchell Hartman

Almost missed the deadline. Thought we'd forget about the column, but so many of the boys wanted to know why no column last month, . . . decided to try again, so . . .

Harlan Dye, Courtney Thompson and Ray Wade have entered the tennis tourney and are now out to beat the antspay off of all comers.

Little Paul Ferrerra better take his kiddie kar to L. A. the next time. Poor Paul got tangled up in the midst of L. A. traffic and had to bring his car home in pieces . . . it's tough, Paul.

Will someone please bring Ray Williams no. 210 paper bags—his hat needs renewing. And poor old Art Bommer sure suffers with the heat these days.

Asked Red Feeney how he was making out in his laundry work on Saturdays and he tells us, "Just swimmingly!," and speaking of swimming, we have one certain welder who went down to the beach 'tother day, and almost lost a foot—he got sunburned.

Pete Cinquigrani says he's going to get a job as a steeplejack when he gets thru the job he's now on. Poor Pete has to

climb up and down all day long—too bad he's so small.

Our baseball team finally found out how to win a game (by having it forfeited to 'em).

Charlie Brown wishes to extend his heartfelt thanks to all his fellow workers who were so kind to him and his family during his recent illness and accident.

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\$100 A WEEK

CONSOLIDATOR

Volume 5

June, 1940

Number 6

Vice-President Marries . . .

On May second, the society columns of leading newspapers in Washington, D. C., San Diego and Los Angeles, California, and the aeronautical publishing offices and other spots no end, buzzed with the news of a wedding. Announcement was made by Mrs. William H. Koenig of the marriage of her daughter, Madie Koenig, to our Vice-President and Public Relations Director, Edgar N. Gott.

With fitting ceremonies the wedding was solemnized at noon in the home of Col. and Mrs. John H. Jouett with about 30 persons attending. Major Gen. Henry H. Arnold, Chief of the Air Corps, was best man, and Mr. Gott's daughter, Stephanie, maid of honor.

The former Madie Koenig was born in Omaha, attended school in America, then in Dresden, Germany, later to graduate from Vassar in 1922. She returned to Europe and had her residence in Vienna until 1938, was president for eight years of the American Women's Club of Vienna, and vice-president of the American Women's Club Overseas. She recently lectured extensively on the Pacific coast, telling of her experiences in leaving Vienna after the annexation of Austria. More recently she returned from an extensive tour of South America with her mother.

Our Vice-President Mr. Gott, is a graduate of the University of Michigan, a Chi Psi fraternity member, and of course as we all know has been prominent in pioneer aeronautical circles for many years. Mr. Gott, or "Ed," as many know him, joined *Consolidated* in 1936 when, after a try at retiring and the life of a rancher, the aviation "bug" just wouldn't leave him alone.

Fellow Consolidators: An ice cold pop tastes right good on these hot days, but working up an appetite for one over a flat tire is no fun. Let's keep our bottles off the parking lots. No. 9409.

ATTENTION ICE-SKATERS

An attempt is being made to organize a *Consolidated* Ice Hockey Team. Mr. Ward Levere, on the big press in Sheet Metal, has kindly consented to donate his services as Coach and adviser. A nucleus has already been formed, and it is hoped that all those interested will either contact Mr. Levere or Ed. Kellog of the Production department as soon as possible.

Charles English
P. R. 4214

GUN CLUB X's

"The time has come," the Walrus said, "to talk of many things, of shoes and ships and sealing wax and cabbages and kings." I don't know just what category this will fall under, but here's some more shooting news:

During the month of April we had twelve pistol shooters vying for top honors, which were divided as follows: 1st, Harry Von Meeden; 2d, H. J. Schnaubelt; 3rd, John Rosmond. The rest of the boys were right up in there but not up quite enough.

The rifle division has been more or less overcome by a larger number of pistol shooters, but we still have some fairly respectable scores among the eight men competing. First place goes to "Annie Oakley" Schnaubelt, 2d to John Rosmond and third to H. M. Prior.

We still have a lot of room for improvement and everybody is working for higher scores. We still shoot at Stanley Andrews' on Wednesday nite, so come on, fellows, let's get in on some good clean fun and enjoyment.

H. M. Prior, Sec.-Treas.

NEVER SAY FAIL . . .

"Never give up. Never give in. Hold on to the end. Persevere, with courage undaunted, vision high. Know that you can. There is more in you than you ever used, than you ever dreamed. Call upon that 'more'. It will see you through."

Signed: A Consair Employee.

TUBE BENDING . . .

By Hart

Earl Van Denburgh reports he has just purchased a new home out 30th Street way. Nice going, Van!

A fishing excursion to Ensenada, for the boys in the Tube Bending Department, sometime in the near future is now in the formative stage. Curtis Franklin will be in charge of all tackle and fishing gear. Norm Freakley, bait, etc. . . also stomach sedatives. While Herman Deischl will be in charge of glassware and kegs. Herman also insists on serving as shore committee to welcome the boys back from the sea. He figures someone has to be on their feet at a time like that. At any rate, no boats for Herman!

Antonie Vionne Kallis, born to Mr. and Mrs. Felix Kallis, Eng. Dept., April 22, 1940, 6:49 p. m. Weight, 9 pounds, 2 oz.

Born to Mr. and Mrs. Ollie Stahlschmidt on March 22d, young David Henry Stahlschmidt, who weighed in at just 7 pounds and 6 oz. Congratulations, Mr. and Mrs. Stahlschmidt.

A minister preaching a sermon on safety suggested a list of hymns that a driver might appropriately sing. While driving at 25 miles an hour he suggests that the motorist sing "I'm But a Stranger Here Heaven Is My Home," at 45 miles, "Nearer My God To Thee," at 55 miles "I'm Nearing the Port and Will Soon Be at Home," at 65 miles "When the Roll is Called up Yonder I'll be There," at 75 miles, "Lord, I'm Coming Home."

—Toledo Democrat.


It is estimated that there is more flying in San Diego than in any other city in the United States.

"The efficient man is always careful."

"A scratch may cause infection—play safe—use your first aid kit."

Facts about the Femmes

BY KATHLEEN SCHNEIDER



BRIGHTEST smile in the plant belongs to Betty Melchor. Does anybody know the answer? The answer is love!

A postcard from Fran Warner indicates the East is still a good place to have a lot of fun and renew old acquaintances. Hope to see her back sometime renewing friendships she made in San Diego.

By the way, Bea Jackson, I still don't think you earned that box of candy, remember? Or are you holding out on us?

Edna Willwerth is in the market for new coin or match tricks. She recently

gave a demonstration (a very well rehearsed one) only to find that her "quicker-than-the-eye-antics" were familiar to everyone.

White shoes among the femme personnel are becoming more common each day. This is a sure sign of summer. And those newly-acquired sunburns and tans being sported by the outdoor Consolidebs aren't exactly signs of winter. (There seems to be every other kind of "deb" mentioned in the newspapers now, so we may as well be in the swim too).

Lucille Fisher, who had a wager at stake, called her Purchasing clan together to find the correct spelling of "picnicking." She got such answers as "picnic-ing," "picknicking," and "picniking." The correct spelling, "picnicking," was found in the dictionary and the Purchasing Department girls are hanging their heads in shame—me included.

College is like a washing machine you get out of it just what you put in—but you'd never recognize it.—The Houghton Line.

Successful men profit by the errors of others as well as by their own.—The Houghton Line.

CONSAIR FLYERS CLUB

Of late Orville Hubbard has been seen rushing hither and yon carrying dull-looking volumes together with queer-shaped instruments under his arms. Upon investigating, it has been found that Orv is studying for his commercial license and instructor's rating as well—a task which anyone will agree rates the use of everything that will make the job easier.

Among our very active membership there are a couple of fellows who deserve much credit for the smiling, amiable way they accepted the none too likeable job of collecting tickets at the "Aviation Dance." Al Drayman and H. W. Dvorak courteously greeted merrymakers the entire evening, regardless of the fact that relief never arrived. This is typical of the fine spirit shown within the club.

Seen at the dance were:

Arthur Becker (club president) and Maxine Hubbard doing a sort-of-a (?) jitterbug polka. So 'elp me, President Becker cracked nary a smile as he swung his partner merrily along! Must take his dancing like flying—seriously. Secretary Steve Brown and wife dancing very capably to the swiny rhythms. Orv Hubbard and Harvey Martin (Los Angeles airplane dealer) having a powwow in the cloak room. Miles Blaine, hurrying here and there, and really getting nowhere. Burrwell Marshall bragged throughout the afternoon of bringing a queen to the dance. He proved his point that evening. Brought to sudden halt was Ed Bruha when he thought he was safely navigating a precarious way to the refreshment room.

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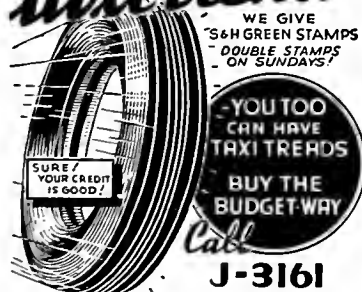
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San Diego Flying Club News

On Sunday, April 21st there was an unusually large turnout of club members at the field, all anxiously awaiting the arrival of the new Cub "50." At about 11:00 a. m. a yellow cub was seen approaching from the north, which finally turned out to be one of the Cubs operating from the Municipal Airport at Chula Vista, much to the disappointment of all. But the suspense continued until 1:00 o'clock, when the ship finally did arrive. The plane was flown from Long Beach by Tommy Butterfield, club president, accompanied by Carl Hunneman, treasurer. After being inspected and admired by club members, the ship was serviced, and the rest of the afternoon was spent in giving the members demonstration hops.

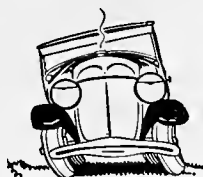
The following Tuesday evening some of the club members were on hand at the airport to alter the paint scheme, which consisted of black checks on tail surfaces and bottom of fuselage and the club insignia on each side of the fuselage.

Two members who have made their first solo flight recently are George Ruiz of Final Assembly and Jenkins of Naval Air Station. At the aviation dance held by the three flying clubs: San Diego Flying Club, Southern California Flyers and the Consair Flyers, on May 4th at the Broadway Pier, a good time was enjoyed by all.

A cross-country flight was made to Mount Palomar on May 5th by Charlie Culver, accompanied by A. H. Davidson, in the "50" Cub. The route was via Lakeside, Ramona to Mount Palomar over the Observatory and return via Rincon and Lake Hodges. A fog on the coast kept the ceiling at two thousand feet, which began to break up east of Lakeside. Climbing through the holes in the fog, the visibility was unlimited and the air was smooth as glass.

The former operations manager, Spike McCannon, is back from Norfolk, Virginia, where he has been on duty for the company. On the way back he stopped in Colorado and purchased a Ryan Brougham B-1, which he is now keeping at the club field.

Charlie Culver has had his license renewed, and Harry Culver, club instructor, has been authorized by the C.A.A. to take his instructor's re-rating course at Speer's. Two members have recently joined the club, Mr. Tracy and Mr. Haught.



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THE AIRPLANE STATION

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— with Bud Landis

When attending old-time movies you took along a nickel and your imagination.

Screens flickered like a lightning bug with a short circuit and actors walked like Liza crossing the ice.

But projection has gone far since the Nickelodeon. Nowadays, any resemblance between the cast and anybody living is more than coincidental.



Actors are on speaking terms with the audience and color has come to brighten their lines.

Soon third dimension will permit a star to shake hands with fans.

And now there is talk of an "odor track" which will waft orange blossom fragrance out over the audience for the finish fade-out.

The more human senses appealed to, the clearer the impression. Shell is working along these lines with a new motor oil demonstration.



Your Shell service station Dealer has a fine Swiss watch actually lubricated with Golden Shell. All the fine mechanisms — like those in your car's engine — are kept in smooth operation by this popular product.

By means of his watch, your Dealer appeals to three of your senses: He tells the Golden Shell story (sound), he hands you the watch (feel), and he gives you a chance to look in through the dials and see Golden Shell doing its work (sight).

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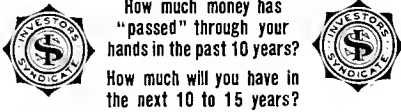
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PLASTER SPLASHES

The surprise Stag party for Joe Miller really was a blowout. We wonder what the neighbors thought of Johnny's horn and the vocal discord? From all indications, it seems as though little Dan Cupid's arrow had pierced the heart of one Doug Robinson.

Even before the party a certain red-head couldn't find Joe Miller's house, and where was Tyler the night of the stag?



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How much will you have in
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Commander R. G. Mayer, stepping out of the position of Inspector of Naval Aircraft for San Diego into the position of Production Manager and Co-ordinator for *Consolidated*; points out to Lieut. Commander Rhea S. Taylor, who now assumes Mayer's former duties, how he (Taylor) should jump down the *Consolidated* Production Manager's (Mayer's own) throat, if production schedules are not met. In other words, Mayer instructs Taylor how to hang Mayer, if Mayer doesn't hop into his new job with alacrity.

STEPPING UP . . .

On a scale more vast than any of us would have anticipated a few years ago, production in our plant is now swinging into accelerated action. And with this acceleration getting under way, the death of our late Donald Marshall Carpenter came not only as a deep personal loss to everyone, but a distinct shock to our production developments as well. The filling of 'Doc' Carpenter's position will be a difficult one, but *Consolidated* is fortunate in securing Commander Roland G. Mayer from the Navy office for Commander Carpenter's former post. Commander Mayer, as Chief Inspector of Naval Aircraft for San Diego, which brought

him in close contact with the problems confronting Carpenter, is fully aware of the difficulties associated with his new job, and qualified by his experience to cope with them.

Commander Mayer's part in aviation has been one of long association and achievement. He graduated from the University of Washington in 1916, and started with the then embryo Boeing plant in 1917; has been with aviation ever since. He joined the Navy in 1918, holds licenses as both a pilot of heavier-than-air and lighter-than-air craft, having perhaps more hours in lighter-than-air craft than any other American pilot. He saw duty on the U. S. Naval Airships Shenandoah, Akron, Macon and Los Angeles and survived the crash of the Shenandoah. Commander Mayer is on leave from the Navy at present. His retirement will become official July 1st.

Entering the Navy office to fill the wake left by Mayer is Lieut. Commander Rhea S. Taylor, Chief Inspector of Naval Aircraft for San Diego. Commander Taylor is one of those rare individuals . . . a

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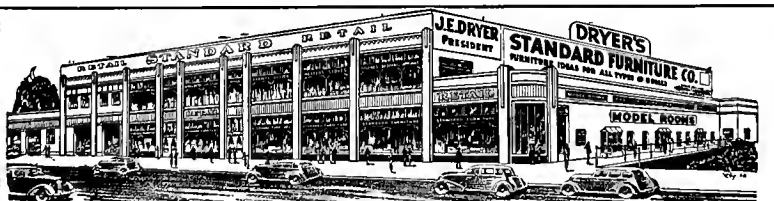
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California native son, for he was born in Oakland on Jan. 30, 1891. He attended the University of California. Enlisted during the war, and attended the Ground School Aviation Course at M. I. T., following this with preliminary flight training at Key West and Miami in July of 1918, and advanced training at Pensacola, receiving his commission in the Naval Reserve Oct. 23, 1918.

From 1918 to 1919 he instructed in the handling of big airboats, later moving to Langley Field where he served with the first shipboard operations on battleships. This was pioneering work that preceded the introduction of catapulting. A 60-foot runway was built atop the turrets and this was all the run the planes had before they took off. Small French war planes were used in the experiments. The planes were forced to land on the beach when they came down. (Incidentally Commander Mayer was responsible for the overhaul and reconditioning prior to test with these planes.) Commander Taylor also served with the first Battleship Squadron on the West coast under Capt. Marc A. Mitscher, now Assistant Chief of the Bureau of Aeronautics.

From 1922 to 1935 Lieut. Commander Taylor served successively with observation, fighter, patrol boats, cruiser scouts and carrier scouts at San Diego and Pearl Harbor. From 1935 to 1938 he acted as Inspector of Naval Aircraft at Pratt-Whitney and Hamilton Standard Propeller divisions of United Aircraft at East Hartford. During the past two years he has been attached to the Aircraft Carrier U. S.S. Ranger located at Norfolk.

It was early in 1926 that Commander Taylor qualified for landings aboard carriers. Due perhaps to the fact that his early pioneering with launching of planes from battleships prohibited returning to the ship once the plane was launched, he now holds a strong liking for shipboard landings. He states he'd rather land aboard a carrier anyway, than on a landing field. Well, if other pilots had started out with experimenting with a choice of a successful take-off in 60 feet (or a splash in the big drink) they too, probably would con-

sider the deck of one of our carriers as about the size of the state of California—but they still look small to most civilian pilots, despite Commander Taylor's preference!

MACHINE OIL

By Al Pfeiffer

Without walls we just can't have any keyholes. Furthermore our ace reporter states that every time he managed to get comfortably located in favorable position behind a lathe, someone whisks it away. The net result is no gossip and very little news.

Our heartfelt sympathies are extended to Bill Chadwick whose father died during the month.

Instead of Old Dobbin and the Shay, Valente has a sporty new Plymouth to spark his gal. The prospective Mrs. is well on the road to recovery hence the jaunty step and cheery smile.

Pappy Yokum says it's too late now to stop the boys from cussin' but we hear that he's teaching Sunday school manners to the future generation of machinists.

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We've been wondering if the new "li-brarians" in the Blue Print Dept. have anything to do with the apparent willingness of the boys to run for prints. Prime mover in that direction is Eddie Carmen—Need a pair of high heels, Ed?

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Emmy Roy's usual Monday morning hair-do puts him out of the running. Who or what gets into that tawny thatch, Emerson?


Party man deluxe is Paul Madsen. This month's feature is an imitation of No. 7 train pulling out of the Chicago freight yards. (Whistles 'n everythin').

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lieve in ghosts for the last seance brought some startling revelations out of the past. Next time corner one and ask him if my Uncle Clem needs gloves to fire that boiler, Clas.

Like the boy who cried wolf too often Lou Peters' stories are given no credence. "It's because I look so strong and husky," says Lou.

What second shift leadman sports a '40 Dodge and a Gable mustache?

Gus Granstedt can't help it if his bite is worse than his bark. Demonstrating his prowess with the new ivories the other day, he actually chawed a piece off one of those big castings. Was it rejected, Gus?

The roamin' fever has left Otto Evans and he is almost ready to sell or trade that little trailer for a what-have-you.

Sure the day shift softball team took a shellacking—but it took the Wood shop to do it.

Those years in Iowa brought Charlie Wharton a yen for the briny deep. His longing is about to be realized for he recently acquired a 35-foot schooner called The Palomar. When are we going fishing, fellows?

Hughie Stockton must have thought that jig needed re-tooling. Most fellows throw a fit when one goes wrong.

A hobby is a good pastime, especially photography, but will Wurzler's pictures stand inspection? Ay, that's the question.

Johnny Worobec has trouble with those street cars. Did such a good job of banging one with his car that he thought he'd try it by hand the other night.

Those new drill presses are so neatly compact they look like sewing machines. In fact several of the boys were caught trying to hemstitch a hankie. Guess Who?



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PRODUCTION MINUTES

By "Brad" Bradshaw

HERE it is press time and like the "bigamist" I make the same mistake twice by waiting until the "deadline" to compose this "headache."

Joe Maloney's business has shown the greatest increase from the "customer angle" and is doing more for the advancement of "blue print reading" than Boeing, Shaw, Ehlert, Gibson, and all the "vocational school experts" can ever hope to accomplish. Of course, Ogden and Bender as usual did a bit of "Planning" there too, in getting an assortment of blondes, brunettes and a red-head so that we should all be happy. The "femmes," Misses Griebner, Holmes, Wright, Bennett, Paschen and Graham are doing a swell job.

"Doc" McDonald is the one fellow who believes in the proverb "All good things come to him who waits" and either by accident or—? Marie Graham pinched a finger in the file cabinet and Joe persuaded Keith Hatter, probably by promising him a raise, to leave his work and escort Marie to "first aid." As the story was told to me—Keith came back alone, and "Doc" supervised the safe return of Marie (with the proper medical attention). It took "Doc" three days to get the "nail polish" off and give out the good news there would be no "amputation." If you find those file cabinets are tampered with in the future Joe, it will not take an F.B.I. man to find the culprit.

A new "Lochinvar" has ridden into our midst in the person of dashing "Buck" Gott who is causing quite a flutter among the female hearts hereabouts.

"Hotfoot" McCall, that stock-getter for the Bench, has a new "breakdown" and reports plenty to do for some time. He claims to have spent two weeks chasing parts for the last one to discover the assembly had been pulled before he got started. "That," says McCall, "is when the old Rocking Chair Gets Me."

Russ Osgood, county amateur golf champion has been employed by Purchasing with duties in the AN Stores. Osgood, who is plenty good, gives Meer and his

crew of "golf bugs" some added power on the links.

Doug McDougal, before getting acclimated, was a victim of that strange malady and missed being a June bridegroom by a few days—just no will-power. Mac married Jane Hughes and spent a three-day honeymoon at Rosarito Beach which was terminated by Jim Mussen and Sam Seligman's "metal smashers" and "short circuit" men running into Final Assembly trouble.

Eddie Kellogg will probably hesitate before doing much boasting in the future about the "he men" of the west and their "capacity" in "making the rounds." Ed started out, so I am told, to entertain a pretty visitor from the East along with Bill Liddle, and Dan Miller, and their wives and ended up furnishing the entertainment. Ed's alibi "I would have been right in there pitching with 'em if that smart bartender had not slipped me that 'Mickey Fin'!!!" Russ Gaughen advises a few "conditioning sessions" at the "Hide-away" and don't forget to "set 'em up" if I come in.

Frank Cross has taken over the duties of "bond and traveler blood hound" that "Frenchy" left after proving himself a "second Sherlock"—a few of Mulroy's "arch abusers" have been thinking of Ed Generas's name in reverse, or as "generous Ed" and asking him to order parts for shortages but have finally concluded there's nothing in a name.—Lou Miller has been talking lately about turning the garden hose on Butterfield, Mulroy, and Ambrose, but is referring to the trees that have been purchased with "donations" left by these congenial fellows at "Friday night sessions" and bear the name of the donors.—

Trotman is thinking of bringing in one of the wife's aprons to wear during lunch hour and protect him from the mustard and gravy that finds a landing field on his "blue serge."—Kel Aiken informs us that his force is doing their part in keeping up the birth rate and that Bill Miller and Kenny Phillips each report the arrival of a baby boy. I cannot verify these reports without the usual cigar.—Marks and Wienberg, two new dispatchers, never realized that carrying so much "meat" so far would make the feet so tired. And they have the "plant expansion" to look forward to.—Dan Clemson says that he left his former dispatching job with only five shortages, fuselage, wings, engines, tanks and landing gear. It's "five" add 'em up.

Red Kimball has added to his athletic accomplishments with the mastery of the "ostrich crawl" which was performed by the "swivel hipped" wonder at "The Barn" recently, according to Owen Stockton. "Rosy" Roesse accompanied with vocal "strains" over the loud speaker.

Les Matusek and his Production softball crew are in action. He has had a full team out so far but still checks up in the red when it comes to paying the ump. Les, says he can pitch, catch and play outfield in case of a shortage. Gaughen, Price, Coykendall, Luppke, Browning, Johnson, Speed, Miller, Leppart and Aubuchan are on the roster. They gave the Anodic Department a 15 to 4 "treatment" the first game.

P. S.—If Kathleen Schneider who writes about the "Femmes" only knew how this "brainstorm" came about she would surely retract those nice remarks made last month.

They copied all they could copy,
But they couldn't copy my mind.
So I left them sweating and stealing,
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HEARD ABOUT THE HULL

Attention was drawn this month to the fine showing of Leadman Al Clark as he came through in the latest Hull Department golf tournament to cop first prize. It seems that Al got a little tired of taking the razzing the boys were dishing out, so he turned the tables and gave them a real

trouncing. The boys now call him "King of the divot-diggers." Nice going, Al.

Starting the newly formed third shift off with a bang are: Foreman, Frank Popp, Assistant Foreman, Harry McEwan. Latest reports: "Everything rolling smooth."

Since the "great expansion" in the Hull department, some of the fellows have been kind of hard to find. Here are a few helpful hints—

If you see a guy with one hand in his pocket and he looks at you with a knowing look, (one eye partially closed)—that's Bob Hayman.

If you see a guy with a clerk or two, an inspector, and several stock-chasers following him, that's Walter Hassler, Chief Dispatcher of the Hull. If Walter can't stop and talk to you, it's because he's trying to catch the man ahead of him. The man ahead of him is Glenn Hotchkiss.

If you see a gentleman come in the plant about three o'clock with eyes sparkling, and full of life, jumping from here to there, that's George Wire, Night Foreman and if someone watches him with awe and admiration in his eyes, and is heard to ask "How in the world does he do it?" that someone is Tommy Johnson.

If you see a guy with a satisfied smile on his face and a look of "good things to come" that's Mike Brooks, first class manager of a first class baseball club. Good luck, boys.

Bill Pettit, Hull Clerk.

The English air passenger demands 4 things: comfort, tobacco, drink and food.

WING KEYHOLE

By Browne

Special: Tod Carter "our amateur war correspondent" received some second-hand information regarding the European situation. The information smelled so badly, the boys throughout the shop were highly disillusioned the following day. Moral: Refer to your daily papers.

Henry Zilz of Sheet Cutting had a real battle with a fire extinguisher the other night. Hank in moving some angles accidentally loosened an extinguisher from the wall; everytime he made a move the hose was one jump ahead and waiting for him. Result, one very thoroughly drenched Zilz.

Flash: Frank Heidemann broke two poker games in less than two minutes at one of the boys' houses recently. P. S. We think it's that extra deck Frankie carries up his sleeve.

Craig Clark has been laboring on a barbecue pit the last few weeks. Some of the fellows have viewed it from all angles and claim it looks like a real job. We anticipate an open invitation to all who bring their own beef, etc.

Congratulations to Bob Morse on his latest achievements. Bob is to be Jim Kelley's assistant. Mr. Morse has the making and we wish him all the success possible. P. S. John Buchan has taken over Bob's post in the Wing Department. Little John can keep things moving and under control. We are proud of you, Johnny.

Steve Powell, night foreman of Wings, really takes off nights owing to the fact the aisles are not so crowded as days. You should see him travel.

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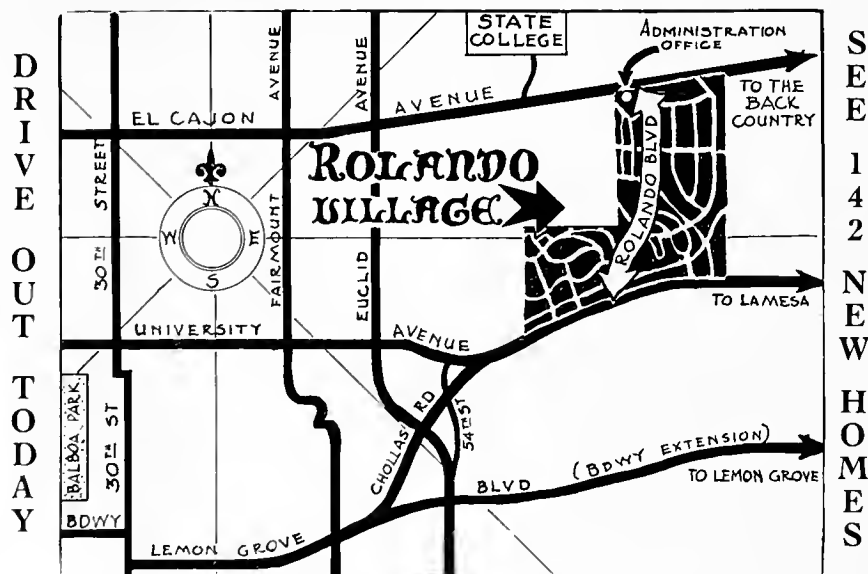
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TANK HIGHLIGHTS

By Hertbel Chappell

Good news from Ernie Bachaus. He is home from the hospital, and we hope it won't be long until he's back in Tank.

Johnny Humes is seeing a lot of a certain dressmaker. Now you don't wear dresses, do you Johnny?

What kept Piper and McCann home Monday, May 6th? Could it be the little man with a hammer?

Wonder who was hiding in the shrubbery at the Municipal Plunge Sunday, May 5th? One might ask John Wiley. Come on, Wiley, show the boys your pictures of the dazzling bathing beauties. Photography must be a swell hobby, fellows!

The man of speed, Jim Saftig, will by now be burning up the bay. He was scheduled to launch his new speedboat before this.

See if you can beat this fish story: Felix Mattingly, a newcomer from Kentucky, a greenhorn at deep-sea fishing, tops them all by hooking a 15-pound sheephead. The rest of the fellows had their lines out long before Felix got his tackle untangled. A few minutes more of deep concentration and he had his line out. He was wondering what to do if a big one hit his line, when wham!—something almost jerked him out of the boat.

Screaming for help while holding on to his tackle with both hands, he waited for assistance, but the boys were doubled up with laughter and unable to help him. To make matters worse the reel came off his rod, leaving poor Felix with the rod in one hand, and the reel in the other. Finally Johnnie Hume came to the rescue, hauled it in hand over hand, landing the biggest catch of the day. On the eventful fishing trip with Mattingly were Jim Eldridge, Bill Consaul, Johnnie Hume, Dick Light-hizer, Bob Summers and Jimmy North.

Flash: A new way to fish! The idea is to lie on the bottom of the boat, and hang your head over the side and fish, or should we say "feed the fish?" For further details, see Duffy and Eddie who went fishing with Charlie Hibert.

Softball news: It seems all the Tank Department needs to win a ball game is three men, Jim Allen, Frank Serio and Clifton—and the help of a few grammar school kids. They played against Drop Hammer and won by a large margin. Come on, fellows, let's turn out and chuck for that trophy this season. The players on the day shift team are: Craig, cf., Saftig, lf., Russell, 2d., Allen, rf., Serio, 1st, Morgan, p., Consaul, c., Sides, 3rd, Turosky, ss. and Lundberg, sub. The above team played their first game against Hull No. 2 and the score was 15 to 8 for Tank.

The following players are on the night shift's team: Emslie, 1st, Burdine, 2d., Wright, ss., Federoski, 3rd, H. Smith, rf., Anderton, cf., Strunk, lf., Kugel, p., Williams, Oleyar and Marshall, subs. This team played their first game against Hull No. 2, losing 20 to 8.

Sam was hired on a railway gang. At the close of the first shift he was all tired out and sought the boss.

"Mister, are you sure you got my right name down on the payroll?"

"Sure," said the boss, "here's your name—Sam Simpson. That right?"

"Yes, sir," replied Sam. "I just thought you might have got me down as Sampson."

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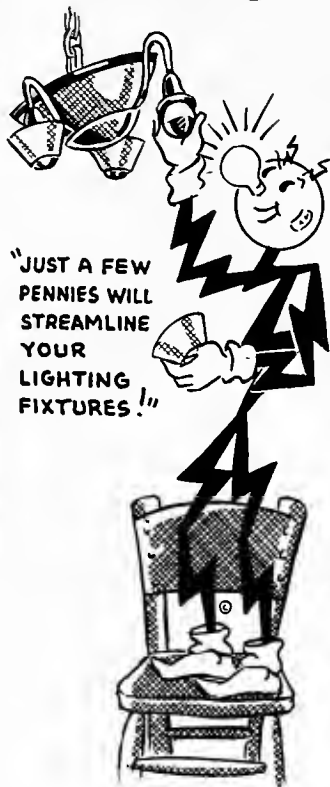
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THE SPORT SPOTLIGHT

By Matt Wielopolski

THE time, 10:30 a.m. every week day. The place, University Heights softball diamond at Idaho and Lincoln. That's where we should watch the night-shift teams play for the Consair Softball Trophy. Thus far, in two weeks of playing, some of the boys and teams have played wild, loose and erratic games. Yet they have proved to us that they can play in a sportsmanlike manner. However, a little more support from their department will bring more fight and lift to the players, as well as the game.

The production outfit had to execute a sizzling triple play to stop the wing team's rally. Craig Clark's boys' spectacle happened in the sixth when a long hit to right fielder Tipon caught and pegged a hot

one to second base, Hall, who relayed to third baseman R. Larceval.

The most valuable player of the month was Tony Bernardini. Playing left field for sheet metal, Tony, single-handed, beat the machine shop out of a game when he caught the near impossible hits. Very good, unusual and spectacular playing, Tony!

Hull No. 2 team had three or four double plays to make in winning their second game, while Hull No. 1, won and lost one game.

They tell me that Al Pfeiffer, pitching for Day Machine Shop, allowed 20 hits in the first inning. Well! You can take it from me, when the boys are good, they're very very good, and when they're bad and off they're . . . well, it's just an off day!

Famous saying from Vic Racko, Mgr. of the Machine Shop team, "Look at the Yanks! They're at the bottom!"

From the golf links, where lies never lie on the course, comes word that Hank Golem shot an even 99 at Rancho Santa Fe. Right?

Bill Little finally out-golfed Dan Miller at the same golf grounds, a mere two strokes margin. "Red" Chaplin occasionally breaks an 88, but Owen Gandee burns up the course in 78, the Snead style.

Evening in and evening out and every week-end our tennis Tom, Dick and Harrys are practicing their game. "This will be the best Tennis Tournament of any which Consolidated has ever had" says Bill Gilchrist.

After press-time, the Machine Shop bowling team will have their last chance to knock the 1st place Draw Bench, off the lead. It'll take a stronger team to win four games from the league leaders. Which means that the bowlers will attempt to beat Geo. Wire's high game, 237-?-s. three game total, 609, and Machine Shop's high series of 2561.

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Consolidator Takes Tops

A group of San Diego Aeroneers journeyed to Pomona Sunday, May 5th, with their gas model airplanes to compete in the second annual contest sponsored by the Disabled Veterans.

Harold Strawn of Engineering, with a Comet Mercury, Ohlsson 23 powered, won first place and the \$50 cash award. Harold's ship circled and dipped over the field for 17 minutes and 7 seconds, landing within one quarter of a mile from the point of take-off.

Other Aeroneer members who attended the meet were: R. O. Spacey, Chas. Hart, E. J. Brown and Bob Hogan.

WOOD SHOP CHIPS . . .

By J. E. Hodgson

WE are pleased to note that George Anderson is back on the job after having his appendix removed. Pretty soon someone will be starting a club so that surgical victims may discuss operations together. I bet it would be better than some of the fish stories that travel around.

Rumors are rife that Bud Hadley and Miss Clydene Blackburn of Ocean Beach, are serious. The date is not yet definite, depending on when the builder can complete their new home. More anon.

In a gas powered model meet of the "Aeroneers" held recently at Pomona, our own Al Young seems to have had the hardest of luck. While his plane remained in the air for forty-five minutes, it was disqualified because the engine ran two seconds over the allotted time, before cutting out.

A group of the boys with their families and friends held an outing and picnic Sunday, May 5th, at Mt. Palomar. Those present were: Mr. and Mrs. Gibbs Mercer,

Art Younghusband and family, Mr. and Mrs. Bill Clark, Frank Mische, Geo. Holzinger and their lady friends, Mr. and Mrs. Boyd Robinson, Mr. and Mrs. Jesse Seiver, Mr. and Mrs. Chas. Pogorel. Miss Judith Jensen had her first outing with Pa and Ma Henry Jensen as she only arrived lately. The party went out by way of Lake Henshaw, returning through Escondido. They had such a good time, that plans are in progress for a similar trip shortly, probably to Warner Hot Springs.

The Wood Shop family is growing so large that they have organized two softball teams. No. 1 under Bob Harshaw, plays Thursdays and won their first game of the season. In his line-up is a new man, George James, fielder, who plays both softball and baseball. He played 4 years in the Navy, and may join the San Diego Padres before the season's end. Team No. 2 under Boyd Robinson plays Tuesdays, and although they lost their first two games, promise to give a very good account of themselves ere the season ends.

We offer sincere sympathy and condolences to Ralph Berg and family on the passing of Mr. Berg, senior, recently, also to Earl Bashore whose mother died May 6th.

The hard luck laurels ought to go to Lynn Baker. Last issue we congratulated him on returning to work after an illness. Now we are informed he has been injured in an automobile accident. The extent of his injuries, however, has not yet been ascertained by us. Let's hope they are not serious.

Traffic problems in Pennsylvania are being unsnarled from a flying plane employing a two-way radio.

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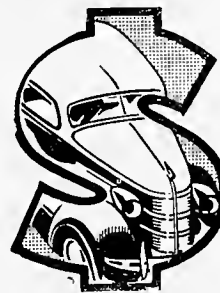
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Let's consider the tanks we use in the planes we build and look over the men who build them. The tanks are of sizes and shapes too numerous to mention. The materials used are Aluminum Alloy, Stainless Steel, and Aluminum Sheet. They are held together by rivets, solder, screws and bolts. Many are welded. They range from the size of the can your favorite coffee comes in, to the dimensions of your pet piano.

Rigid restrictions prohibit a detailed description of their construction details but service tests of the most severe nature prove their worthiness and correct design principles.

have been added to protect their surfaces. All are interchangeable. The parts are fastened into the proper places in the small jigs and the sub-assemblies are soon on the way to completion before the larger skin details are fastened. This occurs in the final assembly jig. Baffle assemblies are added, outer panels are placed in position and held fast. Mounting pads are added, and the tanks acquire next their carefully placed inlet, drain and sump details. All are then riveted together to make an assembly that everyone concerned with its manufacture, or purpose, can be proud of.

The completed tanks have defied the most rigid of laboratory tests, and the more

TANKS FOR THE PLANES

By Larry Boeing

And here we want to refer, for the moment, to the Engineering group which is responsible for the Oil Tanks of riveted construction that perform such meritorious service in our Record Breaker Model 28's. Bud Moerschel and his boys working with him deserve much praise for their efforts.

The design having been decided upon, it becomes the task of Al Ambrose, one of the coolest and most composed looking individuals in the organization, to see to their fabrication thru completion. This duty is no small task, nor could it be successfully executed without the aid of many willing hands who draw from years of broad experience.

First, close cooperation with the Tool Design department is necessary to settle the question of proper tools and assembly fixtures. Here the experience of many heads proves its worth and many a question settled over the drawing board saves time and frayed nerves later on. Close inspection of the actual tank tool building is always an order, and the results are most gratifying.

While this work is being completed a large group of men is busily engaged making details of the various sub-assemblies. Large formed parts are delivered from the Drop Hammers; while angles and trimmed sections come from the Cutting and Sheet department. Rolled formers are sent in from the Draw Bench. Stampings are sent in from the Punch Presses. Machined parts are delivered from the Machine department. These details have all been previously inspected and proper finishes

severe test of years of service in one of the Record Breakers.

Al Ambrose, Tank Department Foreman, handles his most diversified lot of duties, as only a veteran seasoned by many years of hard and trying experience can. Al is truly a product of *Consolidated*, having started as a helper in the Tank and Cowling department in 1925. He has continually advanced thru many phases of production work.

All these duties that befall Al Ambrose's Tank department add up to a total that is beyond the scope of any one man's ability to oversee without the aid of competent assistants. These he has in the capable men who have grouped around him and who direct and aid the various functions of the department. Assistant foreman of the department is Eric Sprenger, and Gene Harrison, a comparative newcomer to *Consolidated*, is in full charge of all drop hammer operations.

Under Sprenger is a group of leadmen who are in turn responsible for various detail construction requirements. B. J. Duffy is in charge of all engine cowl work handled by this department. He is assisted by F. P. Morgan.

Floats and Braces are handled by J. W. Wiley with M. J. Counihan and B. A. Shourdes acting as Group Leaders. E. D. Wilhelm is Leadman in charge of Final Tank completion.

J. L. Theuws and E. Bachaus are Leadmen over groups adding sumps and doing general Layout and Tank assembly work. L. H. Chappell also leads an as-



sembly group. H. K. Parsons is in charge of all riveting operations in the department. John Woodhead leads the Plaster Pattern shop.

The night shift is in charge of A. G. Hartman and he is ably assisted by G. H. Wilson and R. Culver who act as Leadmen.

Continuous production in this department assures a satisfactory backlog of completed Tanks in stock to keep pace with the fast moving assembly lines whose requirements are most demanding.

Al and the Tank boys are proud of the results of their efforts and we can all say truthfully we are a little proud of them ourselves. We can all join in and add, "Thanks for the Tanks, boys."



All completed tanks are subjected to the tell-tale water test which readily shows any signs of possible leaks in the assembly. The openings of the tank are securely sealed and air pressure is directed into the interior of the tank. It is then submerged under water. This final check against any possible defect insures the completed product. In the picture from left to right are Loeb and Parsons checking along riveted joints of tank, while Department Foreman Ambrose and Inspector Dolin observe operations.



All tanks receive thorough inspection before being assembled into the complete airplane. This operation starts with the man doing the work. It is followed by a check by the Leadman or Asst. Foreman and finally by the Company Inspector assigned to the department. The completed items are then presented to the customer representative who in turn examines them.

This somewhat elaborate inspection procedure assures a long lasting article which matches other units of the airplane for dependability, thru long years of severe service demands. In the picture, reading from left to right are, Chappell, Asst. Foreman Springer and Department Inspector Browne.



A tank department group doing rivet assembly work on a float brace strut. To the left and below are Doesch and Sides working as a rivet team, while in the center foreground are McCann and Saftek, and at the lower right, Cunningham and Tulanius. Rivet Boss Parsons is observing operations.

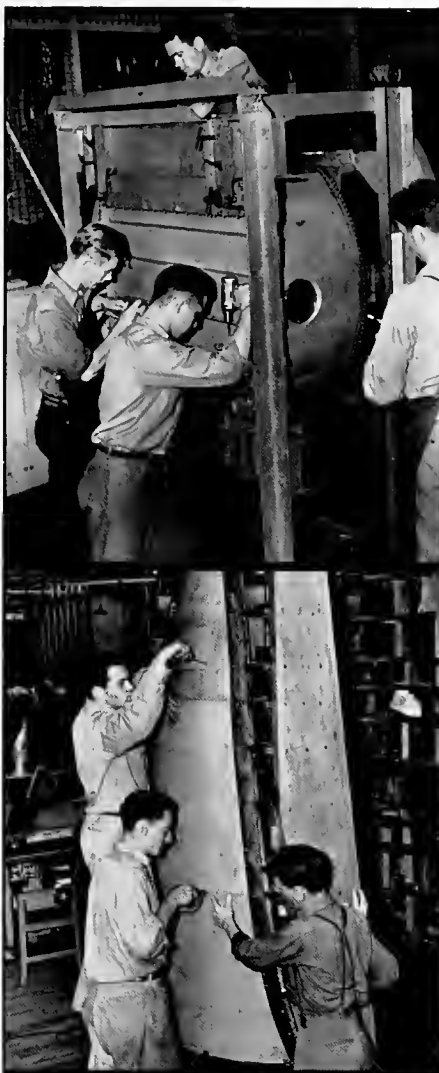
Here again well designed jigs and convenient electrical outlets permit easy assembly procedure. Accuracy and interchangeability in assembly are positive demands and extreme care is exercised in all the operations to attain this condition.



Large flying boats require wing floats to assist them during maneuvers on the surface of the water. And the Tank Department is again called upon to handle a difficult operation. The assembly of these carefully designed units requires experienced men due to the intricacy of internal bracing and the constantly changing lines of the external surfaces.

Pictured about the assembly jig are Clifton, Woodsby, Wiley and Schourdes while underneath with only one knee showing is Kepwith.

Here again the necessity of having watertight joints is imperative and only workmanship of the highest caliber is acceptable.



Pictured at top is a tank assembly being drilled in a large drill jig. All tanks are interchangeable for any airplane of a particular design. Locating mounting holes and fastening holes for accessories and faring is simplified thru the use of correctly designed and accurately built jigs. In the picture reading from left to right are Stricker, Darr and Serio, drilling holes at front and top of tank assembly. Short is working above on holes required on the side of the tank.

Tanks are produced by progressive assembly of detail units and production methods are comparable to the most modern procedure found anywhere.



Smooth lines of the completed airplane are achieved by adding cleverly designed fairing which fastens to the Nacelles containing the power units. In turn the Nacelles are fastened to the surfaces of the wing itself. This procedure and design increases speed by cutting down resistance.

In the picture Morgan is fitting an Inspection door while Summers is checking rivets and Leadman Duffy oversees the operations. Jigs designed for easy access during assembly operations greatly increase production and are easier for the men to work about.



Compressing air warms it. Therefore supercharging a cabin tends to warm the air somewhat. Normally at supercharging altitudes, however, the air is quite cold.

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DOG GONE!!

The appeal for Pet Pictures for the *Consolidator* seems to have "gone to the dogs." At least so one would judge from the above group, for never a single picture of a cat, canary, or rabbit showed up among the whole lot. . . . But it also goes without saying that they're a "dog-gone" good lot of pets!!! There's about every kind and breed represented from thoroughbred mongrels to pedigreed fleascratchers, all of whom rate ace number one with their masters. Here they are:

1. "King" owned by C. Galehouse, No. 14073 of Paint.

2. E. E. Hanzlik's male and female Boston Terriers and German Shepherd. Hanzlik works in Experimental.

3. "Fooee" and "Muffet" belonging to Shaw of Tool Design.

4. G. J. Tompkins' "King White," posing with Mrs. Tompkins. "King" is 5 years old and weighs 92 pounds.

5. James Madsen's Scotty, "Sandi MacDuff" from Ardmore Kennels of Detroit, Mich. Madsen says she's Air-minded as she spends most of her time watching for planes.

6. "Pit-a-pat." Toy Boston Terrier belonging to S. H. Avery of Engineering.

7. F. F. Cole's pet "Pat" half German Police and half Cocker Spaniel . . . a natural water dog.

8. Pets of A. B. Beck of the Tool Room. On the left is "Mitsee" and on the right her son "Jip." Mitsee is Pekinese and (?) and they both do anything their master tells them to.

9. Stan Marcyan's pets . . . his daughter and his dog.

10. Meet "Schnauppsy" who is hot on the trail of a gopher. He is the pet of Harold Hahn of sheet metal and is believed to be a mixture of Dachshund and Wire Haired Terrier . . . what's your guess?

11. "Fooze," owned by Oscar Wehmanen of Engineering.

12. "Bingo" pet of L. F. Airhart of Finish Department. Quite a bit of fluff!

13. "Fooee" and "Muffet" belonging to Shaw of Tool Design. Shaw says his third dog appeared in Stan Marcyan's picture "Little dog meets big dog." (April *Consolidator*.)

14. "Jeep" pet dog of Jim Neiswonger of Sheet Metal Bench.

15. "Jeep" pet dog of Jim Neiswonger of Metal Bench.

16. "Pal" belonging to E. W. Cowell of Experimental.

17. This is "Red" pet of Troy A. Sansing, No. 14092 of Paint Dept.

18. Here's Ed Kaluza's dog "Duke." Kaluza works in Experimental and says of "Duke" that he's an excellent sled dog and has webbed feet. He plans to bring him to San Diego soon.

19. Here's Bub Buffat's "Smoky Ken," born Nov. 20th, 1934, and registered with American Kennel Club, Son of "Triple Threat Tad" and "Hi Jinks Queen," outstanding Wire Terrier champions.

20. "Pit-a-pat," Toy Boston Terrier belonging to S. H. Avery of Engineering.

21. S. D. Whitaker of Engineering writes of his dog "Rappsy in Blue", that he is a pedigree Bedlington Terrier, 7 months old. The breed originated in England and is still comparatively rare. In some poses he resembles a sheep. His fur is blue-gray, very soft, and never sheds. Excellent watch dog. Fast, gentle, and courageous fighter if attacked.

22. "Buster" Bob Biddle's pet, and also the pet of his son Dexter. "Buster" is fearless and afraid of nothing. Has had several encounters with Police dogs, and always came out second best.

PLAY SAFE

IN this period of expansion, when many men are being added to the payroll, it becomes increasingly necessary to pay careful attention to safety rules. Safe working conditions within our plant depend largely on good housekeeping and good judgment on the part of our employees. Recent statistics show, by a large percentage, that new employees are more likely to be injured than those who have had more experience under factory working conditions.

The following rules and suggestions are set forth briefly, both to warn new employees, and as a caution to the older and more experienced employees to be on guard against unsafe working practices. Remember! 90% of all accidents are preventable!

1. **GOGGLES AND FACE SHIELDS** have been provided for employees engaged in cutting, grinding and drilling operations, and are available at the nearest tool crib. Take no chances—use them.
2. **RESPIRATORS** are provided for the use of persons engaged in the Paint Shop, Foundry and Sand Blast Departments. Their use is mandatory.
3. **LOOSE CLOTHING** (ties, long-sleeved shirts and coats, etc.) and **FINGER RINGS**, should never be worn by machine operators . . . play safe.
4. **HAND TOOLS**, such as hammers, wrenches, hacksaws, punches, etc., should be inspected frequently for burrs, wear and looseness, and repaired or replaced immediately.
5. When it is necessary to **LIFT HEAVY OBJECTS**, use the proper hoisting equipment, or secure the services of additional help.
6. Use extreme care in **HANDLING AIR HOSES**. Clothing should not be cleaned with the air hose. If air hoses are used for cleaning off benches, tables or machines, the pressure should be cut down to a minimum, to avoid flying particles which might cause eye injuries to yourself, or other persons nearby.
7. Acquaint yourself with the **FIRE ALARM STATIONS** and **FIRE FIGHTING EQUIPMENT** near your work.

(Continued on page 21)

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"Windmills In The Clouds"

THIS business of building airplanes seems to be catching and in many instances carries over into worker's hobbies as well. Alphonse Gomez, who is a tool maker in the Tool Making Dept., has found this true. His special interest is experimenting and working with "wind-mill," or rotating-wing flying models. Alphonse has done quite a bit along this line, and some of his ideas have brought interesting results.

One of his latest "brain children" is a surprisingly simple hinge arrangement on a three-bladed rotor (he's applied for a patent . . . just in case you have certain ideas). His hinge arrangement changes the angle of incidence, striking an auto-



Pictured at the right is Alphonse Gomez explaining the action of his autogyro type flying model to George Lawson, Tool Room inspector. While details of the hinge placement, which decreases the incidence of the blades as the rotor dishes up, are not visible, they are quite simple.

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matic balance and adjusting the complications resulting from gravity, centrifugal force, lift and drag, and other considerations which must be taken into account in designing a rotor.

While the whole idea may sound simple at first, and the design of these rotors looks like so much "duck soup," it's actually far from being child's play. The simplest explanation of why an autogyro's blades revolve of their own accord, why they produce lift and how they balance a whole set of forces might easily make the best engineering heads swim. If you've

ever tried to wade through an explanation of the whys and wherefores of an autogyro, you'll appreciate the significance of a simple hinge which purports to balance the whole complicated equation. It's a sort of mechanical solution for an involved mathematical problem, with a flock of variable factors thrown in for good measure—in case you don't believe it, try figuring it out on your sliderule some week-end.

Gomez's idea apparently works, because his gas-powered model, equipped with the hinge described above, has made some test flights which have created quite a stir among the spectators. But Gomez has

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found that, in experimenting with rotor models, the fatality rate is rather high, with damage to the plane being the rule rather than the exception. So Alphonse, undaunted, improvised a "wind tunnel" on wheels—his car! To simulate the action of a wind tunnel, Gomez fastens a set of rotor blades on the front of his auto, fixes them securely, and off he goes for a trial "flight." If his theories appear to work out on his "wind tunnel test flight," he hooks up the new blades onto his model autogyro fuselage for an actual trial.

One of the features of the Gomez model, in addition to the rotor blades with special hinge movement, is found in the construction of the tail surfaces. The one central rudder is more or less conventional. But the two stabilizer fins, mounted on the outer ends of the stabilizer, have been "toed in" considerably at the bottom and rear. This feature, Gomez explains, causes the air from the slipstream to converge aft of the tail surfaces, much as a jet in action. Likewise, the very high dihedral angle which exists between these two fins, probably has a stabilizing effect. Or so it would appear on the model.

No newcomer to aviation, Gomez was already a licensed pilot in 1927, and had at that time designed and constructed a two-place low powered, low-wing monoplane. This was quite an accomplishment, and the plane was a good example of the streamlining just then coming into being. Among other features, this plane was equipped with flaps of Gomez' own design—and flaps were rather rare 13 years ago.

Gomez has done quite a bit of flying, with but one crack-up. At one time he went in for sky-writing. On one job he publicized M. J. B. Coffee over the city

of San Francisco. Alphonse has a picture of this job, which proves that he not only knows how to write (and spell), but that M. J. B. Coffee was probably better known to inhabitants of the Golden Gate city as a result of his efforts. The picture, which shows M. J. B. Coffee in sky-writing, proves Gomez' prowess in making a striking likeness of the company's trademark.

As his name indicates, Gomez is of Spanish descent. Born in San Francisco, he is an American citizen. Perhaps his experimentation with rotating-wing flying craft, and his general interest in aviation, is due to inspiration derived from the great pioneering work done by one of his countrymen, Juan de La Cierva, whose genius brought the autogyro into existence. At least this theory sounds more readily understandable than those surrounding the principles of the auto-rotating wing!

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HULLabaloo

By Al Leonard

The Hull golf tournament ended up in a triple surprise when three new champs were crowned. As usual it took two men to win the top flight. This time it was

George Landy and Gordon Shoop. Shoop, who never sleeps on Friday nights and does his sleeping while playing golf on Saturday mornings, had to be awakened on the 18th and informed that he was co-champ. Landy, who so far has gotten nothing but headaches, feels very happy about the whole affair.

In the second flight the winner was Al Clark. Al has been in all the tournaments so far and has never had a chance. Now he admits that he is ready to die happy.

The Hull baseball boys are out in full force again. There are two teams, each entered in a different league. Both claim to be tops in their league so it looks like

the boys will be playing off for the championship one of these days ? ? ?

Johnny Penfield was seen offering a piece of candy to Russ Kern after they had a 'little trouble' on one of the ships. Johnny insists he was just trying to make up, but Kern says he was trying to poison him, and anyway, the piece was too small.

"Mal" Malcuit, who has had very little to say lately, is finally himself again. For all those wondering, he wasn't talking until he got his new 'store clappers.'

The reason for all the cigar-smoking lately is because a flock of new daddies have been born. The proud daddies are: Cliff Lessing, Arnid Solhue and Bill Kushman. All are first offenders.

The boys on the day shift miss Harry MacEwan and 'Yap Yap' Hopman. 'Tis rumored that Hopman had himself put on the night shift so he could track down the elusive anchovy in the daytime. The latest report is that his supply is very low.

SHEET METAL NEWS

By H. B. Millman

ROBERT DAIL GOWDY, the sage of Pine Valley, has been appointed to the Safety Commission. We all wish him lots of luck in his new position.

Jimmy Carr has been rushing the season by getting a beautiful sunburn. Jimmy says, "Look all you want to but don't touch!"

Who is it? He is the older of two brothers in the Sheet Department . . . has such an insatiable desire for blondes that he recently gave his Chevrolet a peroxide rinse. Ask Connie.

Ward Levere on the Hydro press seems to be quite proud of his new filing cabinet. See that you keep it locked, Ward.

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SAN DIEGO

Broadway at State

Some of the boys in sheet metal would like to know why Bud Mason didn't pass around his "all day suckers". It seems very strange, because he received a whole box full.

It seems that Tony Lisette is slipping lately. He can't poosh-em-up as many times as he used to. Can it be that somebody slipped him a steel block rather than dural?

Congratulations are being extended to Little Joe Accethura (Punch press) who was married April 27th to Miss Florence Dean of Los Angeles. Joe Sepulveda (cutting) and Miss Rita Harris accompanied the bride and groom acting as witnesses.

After three weeks' absence Jim Hall, came back only to leave for Los Angeles to have his eyes treated by a specialist. Lots of luck, Jim, and a speedy recovery.

John M. Mayer, sheet inspector, left for Honolulu, T. H., April 29th. He has been appointed as Senior Sheet Metal man in the Army Air Corps. Bon Voyage, John!

In regards to John Kelley's important news this month we would like to make a correction. It's not until September.

Walt Borg is planning on buying a new Austin. What are you planning to do with your feet, Walt?

Ludlow Britten is quite a fisherman.

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He has a secret stream that he goes to every week-end. What does he do with the fish? We haven't seen any!

Buzz Perry has been a busy man evenings cleaning house. His wife will soon be home from a trip east.

Dean Hammond is leaving soon for Missouri to marry his one and only dream girl.

Eddie Raymond takes his golf seriously. It's been reported after a round of golf, that Eddie had to be carried from the links!

TAKE TIME TO LIVE

Take time to work—it is the price of success.

Take time to think—it is the source of power.

Take time to play—it is the secret of perennial youth.

Take time to read—it is the fountain of wisdom.

Take time to worship—it is the highway to reverence.

Take time to be friendly—it is the road to happiness.

Take time to dream—it is hitching your wagon to a star.

Take time to love and be loved—it is the privilege of the gods.

Take time to look around—it is too short a day to be selfish.

Take time to laugh—it is the music of the soul.

Take time to play with children—it is the joy of joys.

Take time to be courteous—it is the mark of a gentleman. Ex.

Special Note to South Gate:

Please put your waste paper in the cans provided. Don't let the North Gate get ahead of you for keeping the plant yard tidy!

THURS. • FRI. • SUN.

WALTZ NITE



**JAY WARDE
HUTTON'S BAND**
"King of Waltzes"
San Diego's Coolest
Hall; Big Ceiling Fans;
200 Windows

DANCE

LADIES FREE 'TIL 8:30 25c After Gents 35c

BUCKNER'S

1st at "A"

In 6
Priv.
LESSONS

Studios Open 12 a.m.
to 11 p.m. daily inc. \$5
Sunday.

949 4th, Opp. Plaza, M. 6966

1st at A



Learn to DANCE

M. 7868

BUCKNER'S

OLD TIME



WED. AND SAT.
San Diego's best music &
largest old time dance

Wed. 25c Sat. 35c

DANCE

Coolest Hall, Best Floor,
200 Windows, Big Ceiling Fans

BUCKNER'S

FIRST AT "A"

A MECHANIC IS NO BETTER THAN HIS TOOLS

WHY ARE SOME GUYS ALWAYS PICKED FOR THE BETTER JOBS?



We don't know all the answers but, we do know that the right assortment of **good** tools plus knowing how to make best use of them goes a long way toward **earning** that better job. How is your tool supply? You should look over the Garrett line of best nationally advertised brands and stock up. See Whitey Dake at the employees' tool store.

GARRETT SUPPLY COMPANY
1126 SANTA FE AVENUE LOS ANGELES, CALIF.

"Today is the tomorrow we worried about yesterday, and it never happened."

At very low temperatures the action in a "dry" cell battery ceases entirely.

DR. HARRIS T. FAGAN

Optometrist

Since 1913

Eyes Examined Glasses Fitted

Phone Main 9240

522 F Street

No Money Down

■ Equip your car now for safe SUMMER DRIVING

No Red Tape

No Delay

Quick Service

Goodrich Silvertown Stores

905 B Street Phone F. 6258

BOWLERS SCORE HIGH IN MEET

Consolidated turned out two teams to enter the Carnival of Bowling Tour. at the Sunset Bowling Center in Hollywood, the *Consair Blues* and the *Consair Greens*, and the Greens succeeded in rolling into 2d place on May 11th and 12th with 2902 as this goes to press. With more than 100 teams yet to bowl it is not likely that this position will be held, but our boys made a good try. L. Bender and T. Coughlin did their share by contributing 620 and 643 respectively. The *Consair Blues* tried hard but couldn't click although Frank Cary rolled a nice 610 series.

In the doubles H. Muck and T. Coughlin collected 1222 pins for 2d place which may bring them some remuneration for their efforts. Muck rolled 647 and Coughlin counted 575 which is good bowling in any league.

J. Craig was high for the boys from *Consair* in the singles with an even 600, with Paul Hoch next with 594.

Roy Coykendall holds some kind of a record for collecting 7 splits in one game. Stay on the head pin, Roy!

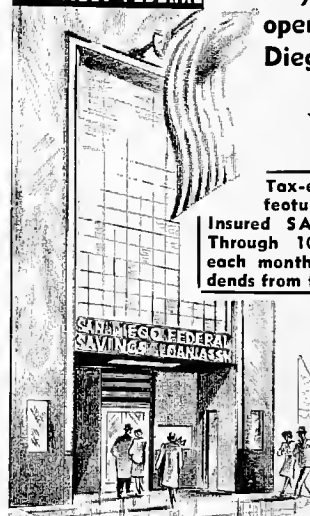
The boys wish to thank the management for the shirts supplied to both teams. The shirts may have thrown them off a bit, not being used to looking like real bowlers—but a good time was had by all and the boys are looking forward to another year.

| Blues | | Greens | |
|-----------|-----|---------------|-----|
| P. Hoch | 555 | I. Craig | 553 |
| F. Fields | 549 | H. Muck | 553 |
| E. Jones | 557 | L. Bender | 602 |
| F. Meer | 501 | R. Coykendall | 553 |
| F. Cary | 601 | T. Coughlin | 643 |
| Total | | Total | |
| 2772 | | 2902 | |

SAY YOU SAW IT IN
THE CONSOLIDATOR

| Doubles | | Singles |
|------------|-----|---------|
| Jones | 551 | 509 |
| Fields | 544 | --- |
| 1095 | | |
| Meer | 543 | 513 |
| Cary | 561 | 584 |
| 1104 | | |
| Hoch | 479 | 594 |
| Coykendall | 634 | 487 |
| 1113 | | |
| Muck | 647 | --- |
| Coughlin | 575 | 570 |
| 1222 | | |
| Craig | --- | 600 |
| Bender | --- | 519 |

SAN DIEGO FEDERAL



ROY HEGG, President

Any amount ★
opens your "San
Diego Federal

Sav-
ings"
ac-
count

★
Tax-exempt
features

Insured SAFETY
Through 10th of
each month, divi-
dends from the 1st

★
Since
1885
never
a loss in
yield or
principal.

★
1027
Sixth
Ave.

INVEST WITH "SAN DIEGO FEDERAL"



It's FUN to be thirsty

when you drink

GENUINE

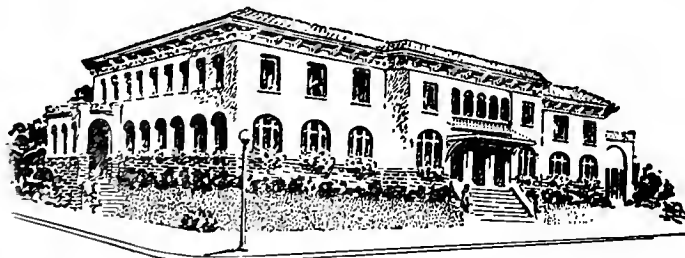
Garzoa

CREAM
ROOT BEER

GRAPE
PUNCH

5¢

ask for it
by name
and GET it!



Personal Supervision of the Owners Assures Careful Consideration of
Each Individual Service • Our Charges Are Always Reasonable

Conveniently Located—Ample Free Parking

JOHNSON-SAUM COMPANY

MORTUARY

Fourth Ave. and Ash St.

Phone, Main 6168

PLAY SAFE . . .

(Continued from page 15)

8. HORSE PLAY is not to be tolerated during working hours, for your own protection, and for the protection of your fellow workmen.
9. There is a FIRST AID KIT in each department. Use it for every injury.
10. Remember GOOD HOUSEKEEPING is a counterpart of safe working conditions. Keep your work place clean and keep yourself clean, personally.
11. HEED THE SAFETY NOTICES which appear regularly on the bulletin boards.
12. REPORT UNSAFE WORKING CONDITIONS to your foreman immediately.

Plant Safety Committee,
Consolidated Aircraft Corporation.
By Donald Frye, Chairman.

"A little nonsense now and then, is relished by the wisest men."

"You may lead an ass to knowledge, but you cannot make him think."

"Nothing is more profitable than ideas."
—Henry Ford.

**DRESS UP
DESSERTS**



QUALITEE

BROWN LABEL

Cream Whips!

It's economical, too.

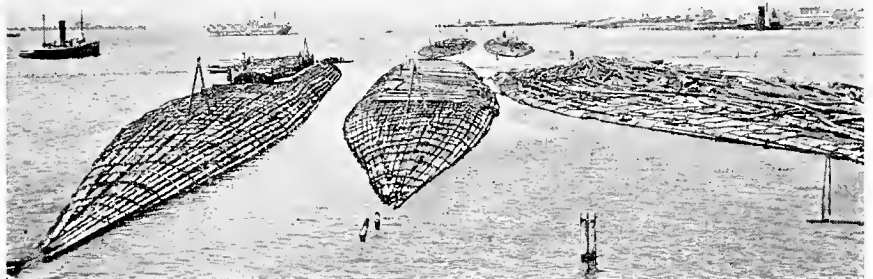
Tune in on "Lowe Highlights"—KGB, Tues. and Fri., 8 p. m.

When Your Food Budget "Soars" Ground it at

SAFEWAY

Special!
Here is a Real Buy!
New 2-Bedroom stucco house
SMALL DOWN PAYMENT
Monthly Terms to Satisfy
Call BENSON LUMBER CO. for
full details Phone Main 6194

Do You Know . . .



Five Ocean Rafts of logs moored in San Diego Harbor, containing 30 Million board feet of lumber to be manufactured at our Mill in San Diego. Width, 52 feet; Length, 1000 feet; Contents, 6 million feet; Binding chains, 200 tons; Depth below water, 24 feet; Height above water, 12 feet; Towed 1000 miles from Oregon.

- That Benson Lumber Company owns and operates the only saw-mill in Southern California?
- That Our annual payroll of \$250,000.00 is spent right here in San Diego, and that our annual taxes of \$120,000.00 are a great benefit to the City of San Diego?
- That San Diego's "Heaven on Earth" climate is IDEAL for air-drying lumber, conceded by government authorities to be the best method of drying lumber?
- That San Diego homes are protected from termites by pressure treated lumber produced locally only by our company?
- That Financing service is available through the loan and escrow department of this 33 year old company?
- That visitors are welcome to see the lumber mill in action?

The Pick of The Trees

• BENSON LUMBER CO. •

ATTENTION, LOCAL MERCHANTS:

We have been approached many times by various merchants in San Diego for a list of our over 5600 employees, now growing at the rate of about 30 per work day. There are many obvious reasons why we can not grant these requests. We think, however, that the merchants should consider the mathematics of using such a list if it were available.

It would cost about 5c to mail a circular to each employee, or a cost for one coverage of over \$280. Our advertising rate for one-half page display in the "CONSOLIDATOR" is only \$58.50 for one insertion; the rate is reduced if more insertions are desired, as shown on the following page.

It should be borne in mind that the employees of Consolidated receive the highest rate of wage paid in this area for comparable work. They receive over twice the average monthly pay of the enlisted personnel of the Services. Also, they do not buy from commissaries. According to our production schedule, by December 1st, we will be employing about 9,000 men. The magazine is given to all employees and as a great deal of the material in it is very interesting to them, it is generally kept and read by members of the family and friends, so that in effect, it has a great deal more circulation than is indicated by the number of copies issued, whereas a circular would soon find its way to the waste basket and would probably be read only once, if at all.

This year we are going to inaugurate an annual Christmas number of the "CONSOLIDATOR" limited to 100 pages, to take the place of the regular December issue. It is planned to make this number particularly attractive with photographs of all current Consolidated planes, additions to the plant, new manufacturing facilities, additions to Lindbergh Field and San Diego as an aviation center generally, together with information concerning personnel. Over 20,000 of this issue will be circulated.

The rates will be found on the following page. While they are much higher than the present rates due to the additional circulation and increased size, copy of monthly advertisers will be carried at the regular rates.

The "CONSOLIDATOR"

REGULAR MONTHLY ADVERTISING RATES

| | Contract 12 Times | Contract 6 Times | Contract 3 Times | Contract * 1 Time |
|---------------------------|----------------------|---------------------|---------------------|----------------------|
| Fourth Cover | \$127.50 | \$135.00 | \$142.50 | \$150.00 |
| Third Cover | 108.40 | 114.75 | 121.15 | 127.50 |
| Second Cover | 108.40 | 114.75 | 121.15 | 127.50 |
| One Page | 95.65 | 101.25 | 106.90 | 112.50 |
| Two-thirds page | 66.30 | 70.20 | 74.10 | 78.00 |
| One-half page | 49.75 | 52.65 | 55.60 | 58.50 |
| One-third page | 34.45 | 36.45 | 38.50 | 40.50 |
| One-quarter page | 25.50 | 27.00 | 28.50 | 30.00 |
| One sixth page | 17.85 | 18.90 | 19.95 | 21.00 |
| One-ninth page | 11.50 | 12.15 | 12.85 | 13.50 |
| One-eighteenth page | 6.40 | 6.75 | 7.15 | 7.50 |

Bleed page—\$10.00 additional.

Color charge—\$40.00 for each additional color.

Cuts or art work, when furnished by publisher, at cost.

*One time rates do not apply to Annual Christmas Number.

Discount:

(a) Cash discount—2% 10 days from date of billing; 30 days net. (b) advertising agency commission—15%.

ANNUAL CHRISTMAS NUMBER

Advertising Rates

| | | | |
|-----------------------|----------|---------------------------|---------|
| *Fourth Cover | \$250.00 | One-third Page | \$57.00 |
| *Third Cover | 200.00 | One-quarter Page | 43.00 |
| *Second Cover | 200.00 | One-sixth Page | 30.00 |
| One Page | 150.00 | One-ninth Page | 20.00 |
| Two-thirds Page | 110.00 | One-eighteenth Page | 10.00 |
| One-half Page | 85.00 | | |

Bleed Page—\$10.00 additional.

Color charge—\$25.00 for each additional color.

Cuts or art work, when furnished by publisher, at cost.

*Cover rates include two colors.

Discount:

(a) Cash discount—2% 10 days from date of billing; 30 days net (billing date is date of issue); (b) advertising agency commission—15%.

DRAW BENCH BENDS

By W. Fink

After five years of bowling the Draw Bench has finally won first place in shop competition. Our bowling team is composed of all night men, some from each night shift. We feel proud to announce this success by our fellow workers.

Ernie Krienkie, manager of our baseball team has been confined to home because of illness. Despite the absence of his leadership the team is still carrying on successfully. We all hope that Ernie will be back soon.

W. Gramse and C. Spann will have

to keep their noses to the grindstone again, for their wives have just returned from a prolonged visit East. We all wonder why Spann didn't show up at work the day before their wives return?

Al Wiegall is now a taxpayer and property owner. He recently bought a house down Palm City way. He invites all the boys to drop in and see him. By the way, his house is very convenient to us for it's located on the road that leads from Tijuana. "Stagger in some time, boys" is Al's latest slogan.

Wm. Dacy has also bought a home. When any of you boys are out Rolando

way, drop in and see Bill and the Misses.

Ralph Smith has been walking around with a vacant stare in his eyes lately. Smitty's expecting a new arrival in his family any day. Don't forget the cigars, Smitty.

Cliff Moore is really in love. Every weekend, rain or shine, he travels to L. A. He says that he is homesick, and goes north to visit his folks. He always forgets to mention the girl next door.

PICK OF THE FIELD

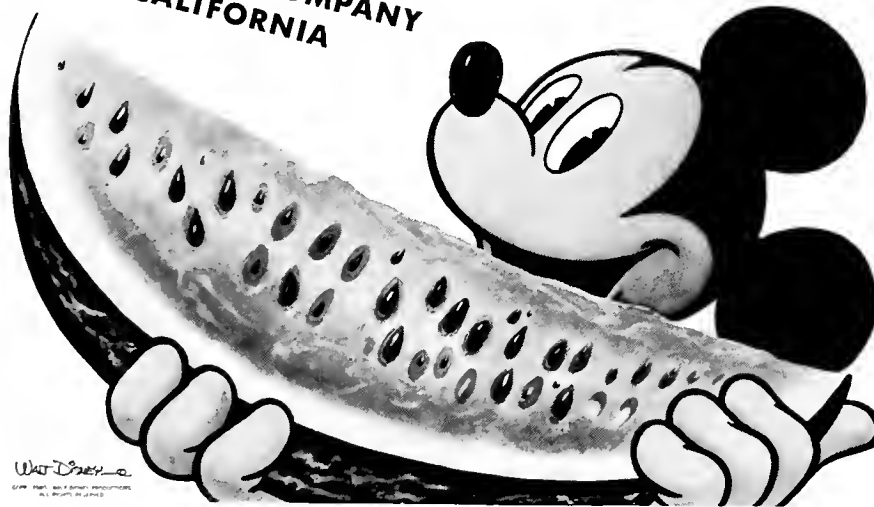
QUESTION:

"What justifies your statement —'RPM' is America's Premier Motor Oil?"

ANSWER:

Simply this: "RPM" just up and licked the toughest lubrication problem ever tossed at the Oil Industry—the "super" heat turned on by modern high-speed motors! Even the best of the old oils couldn't stand the gaff. The final answer proved to be a costly new refining process and a superior oil —"RPM." It's tops!

STANDARD OIL COMPANY
OF CALIFORNIA



America's Premier Motor Oil

25¢ A QUART

Quality Hand Tools

Starrett, Plomb, Crescent, Wiss, Klenk, Gerstner & Kennedy Tool Chests. Home Shop Equipment.

Motor Hardware & Equipment Co.

1125-47 Columbia Street.
Main 0115.

PENTER COMPANY, Inc.

724 BROADWAY

MAIN 4392

CREDIT CLOTHIERS

For Men

Suits
Topcoats
Hats
Shoes
Furnishings
Neckwear

For Women

Coats
Dresses
Shoes
Lingerie
Skirts and
Blouses

NO DOWN PAYMENT NECESSARY

Pay as Little as 50c Weekly

OVER-ALL LAUNDRY & CLEANERS

R. F. TOOLEY, Prop.

Any kind of work garments dry cleaned, laundered and repaired

Truck located in gas station across the street from north gate every morning and afternoon

Your patronage solicited and appreciated

Tobacco Patch The House of Pipes

Largest selection of Pipes in San Diego, including Meerschaum, Calabash and Kaywoodie.

PIPE RACKS . SUNDRIES

1101 BROADWAY

TOOL DESIGN TIDBITS

By Maguire

The march of events in Tool Design have, for the past month, kept the Department in a whirl. We have, of course, moved again. Sorry to bring that up, but it's easier brought up on paper than to pick up a table. Mr. Phil Koenig has a new office with a very appropriate sign over the door. Mr. Larry Boeing says the men in Tool Design are better dressed now. He blames it all on the Blue Print Dept. That's taking unfair advantage of us, Larry.

Le Maire, those are lovely roses you're handing out. Someone should thank you for them.

Sorry to say Charlie Mathewson is leaving us. Needed—one new booking agent: Page Roy Smeltzer!

Charlie Smith is now known as the Cough Drop King. His second is Bert Rowan. For further details see Van Meter.

Carl Ludeman must have been crossed with a bloodhound. He has a mania for finding things.

Marcella left yesterday with a large smile—or a large smile left with her. Hi! Ho! It must be spring.

Wes Kline is looking for a perfect 18 or 30 sixes.


Marcella has another broken arm in her family—what is it, a habit?

Reward—For the return of Shaw's Garrett supply girls.



The tricycle landing gears are coming into favor with airplane designers and pilots. The original Wright landing gear was a skid.

now SHOWING



AT OUR STORE

SHERWIN-WILLIAMS PAINTS

BROADWAY AT TENTH
2861 UNIVERSITY

FRAZEE'S

MISSION DRY CLEANERS

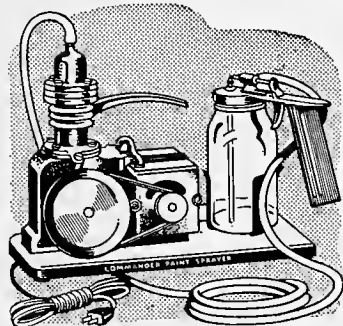


MISSION DRY CLEANING
IS LIKE CONSOLIDATED
AIRPLANES . . . IT FLIES
ABOVE ALL

Phone J-4139
ADDRESS 105 WASH.

SEARS

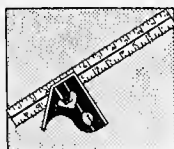
Smart Mechanics Know That Sears Is Headquarters
for Dependable Tools at Money Saving Prices!!!



Paint Sprayer
Includes Gun and Hose

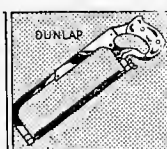
975 2.50
DOWN
Easy Terms

Small lightweight (only 8-lbs) . . .
easy to handle! Developed for every-
day use for jobs around home, garage
or shop. For 110 volt.



Comb. Square
98c

Adjustable head
complete with level
and scribe.



Hack Saw
1.29

Extra rigid frame
for all around shop
use.



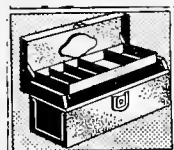
Screwdriver
1.29

Automatic screw-
driver complete with
bit.



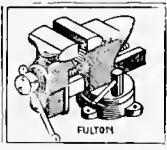
Chisel Set
1.19

Five piece set,
Craftsman quality,
guaranteed.



Tool Box
1.19

Spill proof tool box
with cantilever tray.



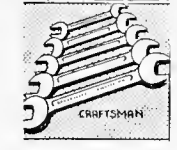
Swivel Vise
2.29

Vise with 3-inch
steel jaws, swivel
base.



Tin Snips
79c

Heavy quality tin
snips for years of
service.



Wrench Set
1.29

5 "Craftsman"
wrenches, open
end. Guaranteed.

SEARS, ROEBUCK and CO.
Sixth Ave. and "C" Street
Franklin 6571



This one's about the farmer's son—



Way back in the days of "Jenny's" and "Hisso" motors an engineer we know was whistling down a country road in his shiny new 1928 Dodge. What did he do but smack into a wagon full of school kids. There was a lot of yelling but not much actual damage. One farm boy was sort of banged up but it didn't look too serious.

Last month that farm kid, now turned 21, sued this engineer for \$10,000—"permanent injury" he claims he suffered back there in '28. Charley (the engineer's nome is Charley) is on the spot. The cut-rate company he was insured with has long since passed on, taking his protection with it.

MORAL: Insure with a first-rate company—you know it'll be around for a while!

316 S. D. Trust & Savings Bldg.
Telephone Franklin 5141



Open till 5 p.m., Saturday till noon.
Any evening by Appointment.

CONSOLIDATOR



CONSOLIDATED . . . LARGEST INTEGRATED AIRCRAFT PLANT IN AMERICA . . . (See Page 12)

JULY • 1940

REWARD!

Calm yourself, friend—this is no man-hunt. It's just our subtle way of hinting that we can save you some dough. If you don't **like** dough, okey—forget it. But if you do—well, pull up a chair. Here's the picture: You weren't born yesterday—so, you believe in liability and property damage insurance when you drive. Now . . . Think you can pilot that buggy of yours the next twelve months without smacking something—and collecting a claim? It'll cost us money! But what's money—we'll rebate you a check of 15% of your premium, and smile! A nice check you can spend.

That's our story in a nut-shell, friend. Hove we made a sale?



Open until 5 p.m. Saturday until noon. Evenings by appointment.

316 S. D. Trust & Savings Bldg.

Telephone Franklin 5141

CONSOLIDATOR

Volume 5

July, 1940

Number 7

CONSOLIDATED GOLFERS

At the Twelfth Annual Invitational Golf Meet held at Catalina June 2nd thru June 5th, *Consolidated* golfers seem to have stolen the show against a field of around 80 players. *Consolidated* golfers were representing San Diego in the meet, and aided materially in bringing back 7 prizes for San Diego County.

Among those from *Consolidated* representing San Diego county were: Mrs. C. A. Van Dusen, Mrs. E. R. McReynolds, Mrs. J. L. Kelley, Mrs. F. W. Devlin and Mr. and Mrs. Roy Miller.

Mr. and Mrs. Roy Miller in the mixed foursome two-ball match, won the event with a very low net of 50, whereas par for the course is 66. Mrs. C. A. Van Dusen tied for second low net in class "C", then played off and won the second match with a 134 net for the two days. Mrs. F. W. Devlin in class "B" tied for 4th place, but lost the following day, although her score was only 139 net.

Roy Miller, it may be noted, has just been elected President of the San Diego Country Club, and Ray Schwarz has been appointed handicap chairman.

ARCHERS

By R. R. Hoover, No. 1456

Consolidated Archers and friends are cordially invited to attend the Western Field Archery Tournaments scheduled for July 6 and 7, 10 a. m., at the "Old Mission Field Archers" official Rovers range in the "Gold Gulch," Balboa Park.

Archers from nine states will compete in the event under the guidance of the Western Archery Association, of which Lt. Col. F. E. Pierce, U.S.M.C. Reserve, is president, and the local clubs, the San Diego Archery Club and the Old Mission Field Archers.

Guests will include Howard Hill, Ken and Walt Wilhelm, Larry Hughes, and many other well-known archers.

"Gold Gulch" is located just south and west of the intersection of Park Boulevard and Laurel Street in the canyon below Pepper Grove and the Girl Scout Headquarters. Don't miss this great archery event!

FIFTH COLUMN ACTIVITIES

We have, as yet, had no indications of subversive, or "fifth column" activity within our plant. And we do not want any such activity. The best protection is prevention. Our fellow workers have been selected carefully, are proud of our country, our work and our American citizenship. Likewise our plant police and the F. B. I. can certainly be classed as extremely alert to any signs of subversive activities. These men are all experienced in sifting clues, know the indications, and how to deal with them effectively.

With as many employees as we now have, and who may come in contact with additional thousands outside working hours; discussing matters as freely as they like (as is our own privilege under American law), it is possible that a few misguided persons might be discovered here and there who might lean toward subversive or "fifth column" activities. These indications should be reported as quickly as possible, for the best treatment of this disease is to get at the root of it early, and do the job thoroughly.

There should be no hysteria, or getting excited about these cases, but it is the rigid duty of every employee, as a safeguard to his job, the work we are doing, and for the protection of our country, to report instantly any suspicious activity or overheard utterance on the part of anyone. This can be done quietly, with the assurance that the identity of the advisor will not be disclosed, which is important, in the event that the investigation reveals that there has been a mistake, so that no harm or injustice will befall innocent people.

Reports should in all instances be turned in to George J. Tompkins, chief of plant police, in person.

Some of the folks who went to Florida for the winter sure found it there.—The Houghton Line.

If all the men who sleep in church were laid end to end they would be more comfortable.—The Houghton Line.

STATE CHAMBER OFFICIALS INSPECT PLANT . . .

State Chamber of Commerce directors and officials convened at a morning meeting on May 24th at the San Diego Chamber of Commerce. Their arrival here from the northern cities was largely by airplane, as was their departure at the close of the day. They were greeted here by Major Fleet and Hal Hotchkiss of the board; Major T. C. Macaulay, executive manager of the local chamber, and other chamber officials. After the morning meeting they were the guests of Major Fleet at luncheon and then inspected the plant.

Among those attending the meeting were: R. K. Davies, San Francisco; C. C. Teague, Santa Paula; Col. Wm M. Garland, Los Angeles; Harrison S. Robinson, Oakland; Joseph R. Knowland, Oakland; Preston Hotchkiss, Los Angeles; A. C. Mattei, San Francisco; D. P. Booth, Modesto; W. C. Mullendore, Los Angeles; A. E. Roth, San Francisco; Harry Chandler, Los Angeles; R. B. Hale, San Francisco; A. T. Spencer, Gerber; M. B. Silberg, Los Angeles; Parker Frisselle, Kearney Park; A. J. McFadden, Santa Ana; James Mussatti, San Francisco and E. W. Murphy, Los Angeles.

MUSICIANS . . . PLEASE NOTE


Heigh-ho! Everybody. The *Consolidated* band is in full "swing"—meeting regularly once a week and doing some really fine compositions. It has been announced by Mr. E. G. Borgens, Band Director, that the band has been invited to play some appropriate numbers at the dedication ceremony of the new factory addition, with a private concert for factory men and officials previously. There are still a few places open for musicians interested in taking part.

Anyone who enjoys singing as a hobby can now join the Chopin Choral Club. It's not necessary that you be able to read music well, as a portion of the rehearsals are devoted to this.

Meetings are every Tuesday at 7:30 p.m. in the Polish Cottage, Balboa Park.

Facts about the Femmes

BY KATHLEEN SCHNEIDER



LEE JOHNSON has deserted us for a vacation in Buffalo with her parents.

Grace Koenig is a staunch believer in the slogan, "Movies Are Your Best Entertainment," and backs up her belief with her own movies. Especially interesting is the colored reel on the Rose Parade, but least appreciated by the feminine onlookers are the scenes of the swarming beehives and the tarantula spider.

A recent letter from Catherine (Phipps) Gebing extends a greeting to her *Consolidated* friends.

Marcella should become a member of the Tall Tales Club. She recently dreamt Jane Dunn had one of our PBY's in her apartment. It needed assembling but the engineers called in could not put it together. Along came Lucille Fisher and Marcella, who assembled the airplane like veterans at the game. Not content with merely showing up the engineers, these two geniuses climbed aboard the plane and

took off out the window! We don't know what midnight snack prompted this dream, but it could have been pickles and ice cream.

A certain company took out an insurance policy. The head of the firm told the insurance agent to insure everything in the place against theft but the clock. "The employees watch that" was the brief explanation.

Juanita tells one about a scotchman who fried his bacon in Lux to keep it from shrinking.

Husband: "I suppose you dropped mustard on this waffle by mistake?"

Wife: "That's a fine way to talk about my lemon pie!"



The kind expressions of sympathy shown by my friends at *Consolidated* during my recent bereavement, are deeply appreciated.—Evelyn Kells.



New books on aviation subjects now available at the San Diego Public Library include:

Teichmann, Frederick K. Airplane design manual. 1939.

Riggs, Norman C and Frocht, Max M. Strength of materials. 1939.

Talbot-Booth, E. C. Aircraft of the world. 1938.

SHEET METAL NEWS

By H. B. Millman

The Sheet Cutting has a couple of very proud anglers in Al Ballard and Hank Ondler. It seems their bait was too large for their finny friends. They both agree it's a good thing we have fish markets.

When a certain little lady can keep Connie Seaderquist out until three in the morning on a week day she must have been very interesting.

Hank Leigal can be seen on the beach taking in the sights these days. Scotty McCarty is getting a beautiful tan working on his farm every day. Eddie Dennison has just been promoted to inspector for the Sheet Department . . . we hope he won't be too tough on us.

Bill Shirreff now has charge of the burning gang . . . watch the shavings fly now! C. B. King, jr., is waiting for the golden nail to be driven in his new house so he can move in at Mission Beach.

Harold Ferguson is a very busy man nowadays trying to do a good deed every day. He is now a Scout Master.

Something should be done about Tex Hatch's poor memory. He started for Yuma recently after work at 12:30 a. m., and got half way there before he remembered he had to be at work in the morning. He arrived just before the last whistle.

Eddie Raymond's golf is improving . . . if he could use only a putter he might get around in par!

The Sheet Cutting's softball team under the leadership of their fiery manager, Al Ballard, has really gone places this season. Tied with the Wood Shop for the championship, they easily won by a score of 5 to 1, giving them a clean record of six games won and no losses. Frankie Eramo, Johnny Galves and Clyde Cowhick starred for the team.

A post card was received last week in the Sheet Metal Department from R. J. Sherwood, a former employee who is now recuperating at the San Diego County Hospital. His card was one of appreciation and acknowledgment for the wonderful way the cutting room boys extended a helping hand. His address, in case some of you fellows want to see him, is Ward 405, County Hospital.

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Overlooking **SAN DIEGO BAY**

GLIDING AND SOARING

By Jerry Littel

SAN DIEGO glider pilots, who this year for the third time took top places at the Western Contest, near Arvin, California, are also repeating their performances at the southwestern meet in Wichita Falls, Texas. Most prominent in the news reports is the former *Consolidated* man, Dick Essery. Vic Korski of Hull dept., who took a month off to serve as ground crew, is basking in reflected glory, for the press informs us that Vic is—not ground crew, nor ballast, but co-pilot! Dick's plane is a dual-controlled, high-wing sailplane which bears an unmistakable resemblance to the *Consolidated* Model 31. As we suspected, Ernest Stout of Aerodynamics dept. served as consultant for his club-mate Essery, during the design of this sensational sailplane which is rapidly earning its cost in prize money.

Ernie has just returned from another three month's of research at Langley Field for *Consolidated*. Just as soon as he gets settled in that new home of his out Kensington way, the boys hope to draw on his experience for other super-soarers.

Meanwhile, soaring has continued regularly out at Torrey Pines. Each Sunday afternoon sees from two to six graceful planes sailing above the 300-foot ridge that deflects the prevailing west wind upward to support them. The Association's 2-place instruction ship has attracted many new members and shown them the thrill and beauty of motorless flight, but these new members have more thrills coming, for when the moderate westerly winds, so dependable in spring and early summer weaken, we turn to San Diego's back country for advanced soaring. The intense heat back there produces columns of warm rising air—"Bumps," or in soaring parlance, "Thermals." The trick is to find these and spiral to remain within them as they rise until they condense into clouds. Then you leave the thermal, gliding in the direction of your goal, until you find another one and repeat the performance. It sounds simple, but more often than not

you find a down draft instead. This used to be known as an "air-pocket." Everything becomes quiet—suddenly the air-speed goes way down and your controls are sloppy. Quick, dive out of it! . . . Then a terrific updraft will hit one wing, trying to upset you. Don't yield . . . turn on it and charge it like a wild beast! The air-speed jumps to twice your cruising speed . . . haul the stick back and feel the climb. Twenty feet per second . . . that's fine. You've caught the thermal . . . just spiral to hold it, watching your rate of climb to determine its core. Thermal soaring requires both skill and knowledge and develops airmanship as no other flying can. It requires a strong ship too, for the sailplane may change from a 30 ft/sec sink to a 30 ft/sec climb in one second.

After 130 hours of soaring, the club ship is going to get a thorough overhaul by Harry Connor and Rae Parker, before our first trip to the desert this year.



A TIP-OVER . . .

It looks as though the motor scooters finally selected for use about the plant are to be equipped with side-cars. This may or may not be to keep them from tipping over. Both plant engineer "Bill" Maloney and Factory superintendent "Jim" Kelley have been seen operating them with no trouble whatsoever, but if one of these scooters ever turns up with a heavy piece of drop hammer die inside of it, and either of the two mentioned gentlemen suspects that the other was using this to prevent tipping over . . . there's going to be plenty of kidding.



AERONAUTICAL I. Q.

1. What is the name of cylindrical tube with open end pointing upstream, used in measuring impact pressure?
2. The identification marking for A-17's rivets is what?
3. Give the tensile strength of an A-17's rivet.

Answers at bottom of last column.



Texas highway sign: "This is God's country. Don't drive like hell."



Which recalls for no particular reason the old yarn about the superintendent who gave one of his men a ten-dollar bill and sent him to the store for a bottle of pop. "Get something for yourself," he yelled as the lad was leaving. So the messenger bought himself a pair of shoes.

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DO YOU REMEMBER

When a directory of the garages along your route was an absolute necessity on every out-of-town trip?

When one manufacturer created a sensation by placing the steering wheel on the left side in his 1911 models?

When the closed car was called a "show case on wheels" and people who drove them were called sissies?

When rival speedometer manufacturers advertised: "the only speedometer that tells the truth?"

When car registrations and licenses were handled by such departments as The State Board of Boiler Inspectors?



1. Pitot tube.
2. A dimple in the center of the head.
3. 25,000 lbs. to the sq. in.



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SAN DIEGO FLYING CLUB NEWS

By A. H. Davidson

In the last month, several ships have arrived at the club field from distant points,—some staying over night.

The members voted to purchase a new Learadio Receiver for use in Club ships. Tommy Hemphill of Engineering is in charge of Radio installation and maintenance. Several weeks ago, he tested out one of his short wave Transievers in the Cub "50". One of his friends had another Transiever on the ground and the reception was very good in the plane and on the ground, without any shielding of any kind.

Jack Berg, youngest member in the Club received his private Pilot's license last week and is very proud of his accomplishment. . . . Charlie Culver is busy adding up the hours for his commercial license. The Club members are marking the field with Markers and the work is progressing rapidly.



There is one radio for nearly every third person in the U. S. . . . There is only one private airplane for every 9,692 persons in the U. S.



Hollywood Co-operation

Although over a hundred miles from Hollywood, *Consolidated* has been able to co-operate with Hollywood producers of motion pictures. First there was the picture "Wings of the Navy" in which Model 28's figured quite prominently. Then followed "The Magnificent Fraud," and now it's "Mystery Sea-Raider" soon to be released by Paramount. Carole Landis and

Henry Wilcoxon starring in this new picture, utilize a life raft borrowed from *Consolidated*, as shown above. *Consolidated*, however, has given Hollywood a bit of competition already . . . producing the 55 minute sound film, "Building the PBY Record Breakers" which has been telling how the Model 28's are built to a wide audience. This picture was filmed during the early peak in Model 28 production.

PLASTER SPLASHES

By Red Boyle

We are still waiting for those cigars from Joe Miller and Emery Seward. They both had additions to the family; Joe a wife and Emery a six-pound boy.

Congratulations to J. Woodhead who is upped in position with us . . . also to M. Neale on becoming a lead man.

Joe Tessary is back with us again. He's getting along fairly well with J. Debs. This is most strange.

J. Debs had another crack-up. That little Willys surely is taking a beating. Johnny must drive his car like he slings plaster . . . all over the place.

"You have a nice collection of books, but you should have more shelves."

"I know, but nobody seems to lend me shelves."—Vesta Vamp.

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"IDEAL HOMES"

Dutch Klein (To John Kunkel on his first day of riveting): Kunkel why are you throwing away about half of these rivets?

John Kunkel: Those rivets are no good. The heads are on the wrong end.

Dutch Klein: You numbskull! The heads are not on the wrong end of those rivets, those rivets are for the other side of the ship.—H. S. Cooper, Jr.

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ANODIC ANECDOTES

By Bert Naseef

When making my inquiries of the boys regarding contributions to this column, my only answer was "no news" from each and every one, but by pressing the matter, it developed that they had all been too busy to write.

Ted Lohman said his spare time was taken up by pitching ball for the Drop Hammer team and sitting up nights waiting for his daughter to get home with her boy friend.

Wally Miles not only plays for Drop Hammer in his spare time, but also uses up the rest of it by being an Eagle booster and using his wiles in the real estate game.

Harry Parker left for Oklahoma to round up his wife, who has been absent for six weeks—he'll be back next month.

Airhart is busy at home, making a dark-room and developing and printing pictures. He has taken some dandies.

McGiffin bought a home and is now doing some truck-gardening. Gerber attends Bible classes and is getting prepared to pass the lessons along to his nine-months-old daughter.

Sidley's, Gonzales' and Warner's doings have been a deep secret, although my suspicions are that Warner, who claims he takes his "sister" around a lot may have a well-developed sense of humor—anyhow she's somebody's sister, and darned pretty, too!

The entire Anodic Department wishes to congratulate Alexander, Griffith and Jones on their promotions to assistant foremen. "Nice going, boys."

We all welcome the new-comers to this department. They are Williams, Larceval, Valley, Pennepacker and Fernvaldi. Williams is an ex-cowpuncher and hunter, Larceval is a good ball player and Pennepacker is one of Hoover High School's champion football players.

Well, after hearing all this, I wondered what the gang considered news; were they waiting for a good murder, or perhaps they were waiting for a stock-chaser that was not in a hurry or for just one little part without a rush tag on it—that WOULD be news.

P. S.—Latest news is that Thoman, our spring tightener, has decided to build a home where he will raise his families, and bees too.

Our checker-in-er, Dave Mann, says he's gotten a lot of new ideas from his girl friend, who has kept him busy nights, and he is going to try them out soon. What they are or on whom or what he is going to experiment with, he will not tell, but it is still leap year and maybe his lady-friend is trying out some new ones on him—anyhow, good luck, Dave, you'll need it.

That is all 'till next month.

Faint heart never won a pint of peanuts, nor two days an airplane built.

"Do you know where little boys go who smoke?", and Junior answered promptly, "Sure, out behind the garage!"

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— with Bud Landis

Once upon a time, and shortly thereafter, self-preservation was the first law of nature.

A person looked out for his own neck with considerable pride of ownership.

He would go out of his way to keep his framework from being overrun by passing motor chassis.



But at present, there are strong indications that nature's original statute has been somewhat repealed.

You will notice this in the conduct of some pedestrians. Like the one who walks across with his foot asleep up over his ears.

And the defiant type who wends his way through form-fitting traffic, making more faces than progress.

Also the quick-change artist. He looks neither right nor left but sets out for the far curb like Liza crossing the ice.



If foolish footmen would do their daily dozin' at home, it would tend to keep them in an excellent state of preservation and at the same time cut costly congestion by ten percent.

Drive into your Shell Dealer's Service Station and get a Share-the-Road Club emblem. That'll tell the world you are willing to follow rules afoot as well as awheel.



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HEARD ABOUT THE HULL

By Bill Pettit

MANY were the questioning looks and dubious glances that were cast Al Leonard's way a few weeks ago. Al, who is noted for his quick wit and tongue-tripping tirades came to work moaning and muttering to himself, going from place to place gnashing his teeth and was heard to say, "What to do? What to do?"

Finally some of Al's fellow-workmen managed to get his tale of woe from him.

It seems that Al's wife was so inspired by the new car bought by her devoted spouse, that she firmly resolved to learn to drive. All went well until she undertook the task of entering the garage.

With only the usual amount of gear-grinding and tire-spinning antics, Al's pride and joy (the car) slid gracefully to a stop, inside the garage. But, alas, imagine Mrs. Leonard's dismay to find she had forgotten to open the doors! To make the situation more complicated for our bewildered leadman, a helpful neighbor nailed the doors back good and tight, then suddenly remembered the car, with its new-found scratches was still in the garage!

"What a life," quipped Al, "the minute I turn my back, my past catches up with me!"

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Right under the noses of the men in the Hull Department, geniuses are being born. Bob Murray's model airplane collection is really a work of art, and to look at Tom Eckles one would never suspect that Tom, though quiet and modest at the shop, becomes a whirling, raging madman on the ice rink. It is rumored that Mr. Eckles may be in Sonja's new picture, "A Star Fell Down!"

Unable to stand the strain of the constant hustle and bustle of the Hull desk, Russ Keins took his inspectors off by themselves, way down by Hull No. 2. How's it feel to be away from it all, Russ?

The "Consair Rod and Reel" had quite a jamboree recently. Needless to say, now that Johnny Hopman is on the night shift, Mr. Bender and Mr. Bradshaw walked off with the largest part of the pickled herring. It is also needless to say that there was free beer, and sandwiches. Plenty of sandwiches left over!

Unanimous vote concedes the hard luck victim of the month to be none other than our new found friend of the fishes, Bill Bates, Hull Inspector.

Bill decided to really have some fun over the week end, so he joined Glenn Hotchkiss, George Wire, Ray Kendall, and a few of the Hull gang on a fishing trip down Mexico way.

Their trip down consisted of tire trouble, and plenty of it, engine trouble and almost all other things that can happen to an automobile. Despite all the obstacles in their path the fellows finally reached camp safe and sound!

Becoming more and more enthused with every cast of his line, Bill put all he had into one magnificent cast, but much to his horror, his rod and reel flew from his hands and sank to the bottom of the lake. Up bright and early next morning Glenn and Bill dragged the lake in vain for his rod. Finally in exasperation, Glenn had to jump in after the pole before it was finally brought up. After recovering his pole, Bill set about to fish in earnest and was doing quite well when all of a sudden a splash was heard and there was Mr. Bates up to his neck in water!

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HULLABALOO

By Al Leonard

NICK KARPINSKY, who formerly played second fiddle to the Czar and is now a Hull Department inspector is becoming a golf fiend. He is learning all about the game from "Scotty" Doig, Freddie Grossher, Mike Brooks, and "Red" Chaplin. Nick follows this foursome every Saturday in order to pick up the finer points of the game (?). Karpinsky sings a pretty fair bass and does so no matter who is driving off or putting. "Scotty" Doig got the longest drive of the day when he teed off just as Nick hit a high note while singing "Dark Eyes."

Lawrence Bailey has gone the way of all flesh and has taken unto himself a bride. "Long" John Kimkle is approaching the zero hour. His Waterloo will be in August. A secret marriage that really was a secret came to light last week when Eddie Wallant admitted that he was married seven months ago. How can a man be married seven months and not show it?

What sort of blackmail does "Scavenger" Galley have over Harry Smith to force him to bring him an extra lunch every day?

How come "Brute" McJoyner has an accident with a Ford and ends up with a Packard?

The Hull Department was well represented at the Tug-of-War tournament at the Balboa Stadium. The Hull musclemen were Augie Yorges, Bob Vick, Tommy Vaughn and Hank Yogerst. The boys won nothing but strained muscles—but a good time was had by all.

The North Hull is rapidly developing into a veritable jungle of bucks, posts and

balconies and the new men are having a terrible time finding their way around. "Yap Yap" Hapman has started a drive for guides and a telephone system to help any of the new men out when they get lost. While wandering around the bucks one night Hapman found a new man in a semi-conscious condition. Hapman quickly brought the man around with some anchovies he carries for emergencies and listened to a tale of horror. The poor fellow was lost without food for six days before Johnnie found him!



How Is Your Thinking? Asks No. 1823

1. Does tonnage in a naval vessel, a commercial vessel, and an aeroplane have the same meaning?

Answer Page 15.

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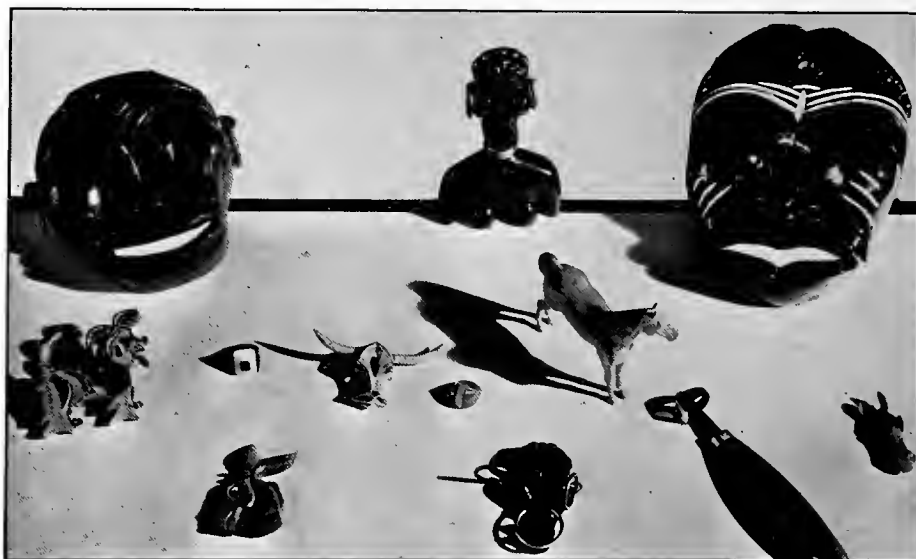
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WOOD CARVINGS

The wood carvings pictured here are the work of L. S. Jones of the Wood Shop. Jones started carving wood as a hobby some years ago and has developed a fine technique in an art that none of his family, as far as he knows, has shown any aptitude.

For some time Jones taught wood carving in a hobby school in Glendale, and later in Hollywood, selling numerous masks to Los Angeles department stores.

Most of the designs are original, and the pieces sold by the Los Angeles department stores attracted considerable attention, especially among the ladies. Except for the finger rings, the articles are carved out of wood, and are exquisitely finished. The rings are carved out of a plastic material and are quite novel.

TUBE BENDING

By Hart

James Neese and Robt. Bertram have just moved their families out here to the coast. I sure hope they find San Diego to their liking. How come Norm Freakley missed the train?

Who was the expert rifle shot who couldn't even hit an electric percolator . . . ? Curtis Franklin might know something about taking a pot shot at a carton . . . which contained a brand new electric percolator and two electric light bulbs. None were scratched!



X NEWS

Al Waid of Cardiff by the Sea and Nellie Thompson were married in Yuma, Arizona June 1st. Their trip home was dulled by considerable tire trouble.



Feminine complexions are so called because they're so complex.—The Houghton Line.

"They told him it couldn't be done."
"So what?" "So he did it!" "Then what?"
"They said, 'I told you someone would do it!'"

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SOUTHERN CALIFORNIA FLYERS NEWS

By Joe Havlik

DURING the past two months the Southern California Flyers membership has been increasing with great success. Many new members have signed on the dotted line so that they may enjoy the thrills of that so-called term of "Flying thru the ozone." They now enjoy the fun of flying in our spot landing contests, which are held every Sunday afternoon, and then being entertained at a party in the evening. The social events include beach parties, hay rides, dances, ice cream socials, and various trips to points of interest throughout southern California.

Due to the rapid growth of the club we are at the point of purchasing a second ship such as a 125-horse-power Fleet or Kinner or such a ship as desired by the members of the club. President and Instructor Albert L. Griffith now taking a C.A.A. refresher course, will be giving the solo students a thorough and advanced training in this ship. Also the training system will be outlined as by the C.A.A. course now being given at the leading flying schools throughout United States.

The roll call to date is as follows: Bob Bailey, Bill Burflinger, Tommy Munn, Pat Dowling (better known as "breeze 'em in Dowling"), Ray Dinsen (known as "Grease 'em in Dinsen"), Gene Englehorn, Tommy Emerton, Jack Evans, Maurice Gilstrap, Joe Havlik (Commonly

known as "Test Pilot Havlik"), Tex Hills (The Flying Texan), Mrs. Ina Harris, Joe Hollenbeck, Billy Luffy (the one and only "Rumba Bill"), Leo Leonard (our latest solo product), Art Le Barre, Isabelle McCrae (our "First Lady"), Bob McGregor (adds the industrious era of "Lazy McGregor"), Fredrick "Ace" Robertson (is noted around the field as "Hop along" Robertson), Fred Saari, Tommy Saunders ("Tune 'em up Tommy"), Bob Sprague ("Wing Ding" Sprague), Kenneth Smith ("Motor Glide" Smith), Bill Sutton ("Wee Willie" Sutton), La Vaughn White, Victor Urias, Ray French, Carl Johnson, Charles Green, and last but not least we have Kae "Mom" Griffith.

Friends and visitors are always welcome to see our spot landings contests any Sunday afternoon at Peiks Airport just off of Highway 101 North, near the radio beam towers.

"Knowledge comes, but wisdom lingers."—Tennyson.

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LEADERS IN SPORTS

By Matt. Wielopolski

William (Bill) Gilchrist, our welfare director, told us the other day that "Patience pays dividends." Ever since *Consolidated Aircraft* came to San Diego, their sports activities have produced the cleanest, keenest, and finest in sports.

Last month, diminutive Tommy Mendez beat an array of fine badminton players to annex *Consolidated's* second badminton tournament. However, Tom had to really show his best plays, tricks, and shots to take the 1940 trophy from the 1939 champion, Johnny Lockwood. Not long ago, Mendez played in the well-known Holly-

wood Badminton Play-offs. After it was all over, Tom won six successive matches to win the Class "C" title.

Recently Homer Shaylor, top entrant in *Consolidated's* fourth tennis tourney, won successive matches over Don McClarren and "Lefty" MacGowan to become the 1940 Tennis Champion, thus succeeding Lloyd Lyoko, last year's leader in tennis. In the semi-final match, McClarren almost upset Shaylor by winning the first set at 7-5. Shaylor then pulled the second set out of the fire at 10-8. Coming into the third and final set, McClarren went ahead in games at 4-2. After playing nip and tuck and eye for an eye type of game, Homer Shaylor loosened his grip and began playing a spectacular and superior game of tennis. The following four games ended the set and match at 6-4 in Shaylor's favor over the "hard man to beat," McClarren.

Most significant happening of the tourney was "Lefty" MacGowan's playing in the finals match against Shaylor. Despite his experience, excellence in shots and clever playing, "Lefty" just couldn't hold off Shaylor's court strategy and superiority, losing 6-3 and 8-6. Thus, for the second successive year, MacGowan became runner-up for the Class "A" title. One often hears it remarked that "third time is a charm" — better luck next year, "Lefty."

Bennett won over Peterson to take over Class "B" honors by 6-2, 6-1 scores.

In softball, Speed pitched his Tool Room team to victory in four out of six games. The Production gang received but one hit, yet they managed to steal two runs, to win the finest game of the season, Production 2, Tool Room 1.

The night shift Machine Shop team has won their five last games. Having lost one outside game by a score of 10-9, Broadway Beauties were the lucky ones. To date, the Sheet Metal team leads the league on the strength of their win over a strong Hull team.

Roy Gillmore wins the orchid for this month's superb ball-playing.

Watch out for the Maintenance team in the day league!

DRIFTING THRU DRAFTING

SINCE the Engineering department has adopted the popular expansion movement in vogue today and is moving to the far corners of the new drafting room, the engineers travel faster than the news (shop opinions notwithstanding) to the detriment of your correspondent. Indeed, it now requires nearly a day by fast yak train to hear from the last outpost. But it is hoped that the shifting of locations of the various groups will enable some of the boys to find out how the other groups do things. For instance, Andy Minella could have saved himself both mental and physical anguish if he had not learned by the hard way that ailerons have ribs. An experimental test panel had been made for the control surface group and having served its usefulness several of the boys one noon decided to subject it to a sort of fistic blitzkrieg. Both Jack Stuck and Sandy Falbaum smacked their brawny paws through both layers of the taut fabric covering and even Vaughn de Kirby succeeded in making some tiny knuckle imprints on the top layer. This was too much for Minella who had been watching the proceedings from afar. He approached

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with the tense eagerness of a Kansas farmer as he spies the swing-the-sledge and ring-the-gong contraption at the county fair. He squared away before the panel, wound up and let fly with a prodigious wallop that landed smack on the new type invisible rib which was spirited away from the old time corset and placed in tail surfaces instead. It being a solid web rib Mister Minella's mortification knew no bounds, but it's an ill wind that blows no good for Bill Maloney is planning to use Andy until the new drop hammer arrives.

The Fixed Equipment group was anything but that recently at a remarkable trading mart which took place during a lunch period. Barry Jewell, who is fast earning the title of "The Professor" because of his choice of loud suits and his absent-minded antics, laid a fifty-cent piece on his desk for some obscure reason. Chuck Freel, who is always desperate as a result of his splendid poker playing, snapped it up in a flash. Barry then grabbed Freel's beam compass and sold it to Jimmy Walker for a dollar. Walker traded the beam compass for a bow compass, and then began a series of lightning trades that would make David Harum look like an amateur by comparison. The exchanging finally bogged down when someone tried to trade Pete Carlson's golfing nonchalance to Ken Whitney for a book of matches.

Ad quidnunc:

While Gordon Waite was at home ill, his good wife could not understand why persons kept calling him from the plant about the "Finnish spec" when that country was no longer buying airplanes.

Ted Hall was not able to see the film,

"My Son, My Son" at a recent downtown showing. The reason was the arrival of his third daughter. Sons and daughters have been arriving in about equal numbers to the other boys around the drafting room. Ralph Reid, "Tom" Collins, "Pop" Edenfield, Eddie Rohn, Brad Powers, Jim Breesee and Felix Kallis are among those who have conspired against the census taker since he made the rounds.

The new adornment on Med Sherwood's upper lip is quite a handy thing. He maintains that it enabled him to keep perfect balance while rolling over a 125-foot embankment recently. Judging by a few of the local softball scores there are some pitchers who could use a thing like that.

The only figure that Clarence "Gourmand" Gerber cares about is a mathematical one. He so dearly loves to eat that we are told he will even sit at the table in a high chair and wear a bib, if the steak is well done. Tsk! Tsk! And with the Santa Barbara "most perfect man" ballot coming up soon.



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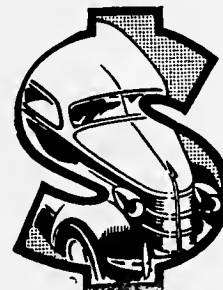
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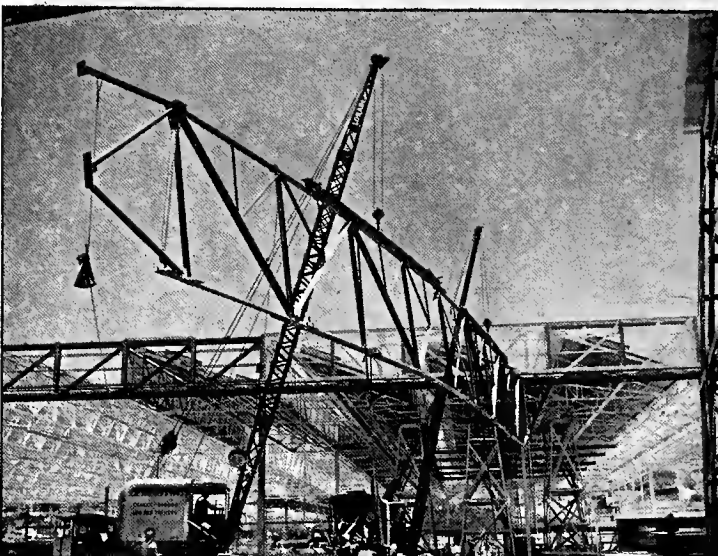


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Consolidated Aircraft Corporation is unique in its possession of most favorable conditions surrounding its ascendancy as the largest aircraft plant in America:

The greater preponderance of the backlog, now noted at over \$70,000,000, consists of United States Government work, with a smaller proportion of contracts for foreign deliveries, leaving the company

On May 29th, Major Reuben H. Fleet, Founder, President and Manager of *Consolidated*, summed up *Consolidated's* position and outlook in the following brief message to all:

"This is our 17th Birthday. It finds us with (1) \$70,000,000 worth of work and outstanding quotations which, if accepted within the next month or two, would bring our backlog to over \$100,000,000; (2) the factory being doubled, comprises 1,910,000 sq. feet of covered and uncovered manufacturing space, making it the largest integrated aircraft plant in America; (3) an option on adjacent land, equal to 50% of the above area, with plans nearly completed for its possible improvement; and (4) a good organization—equal to any in the industry—the best in our history.

"So in counting our blessings let us consider that we have a factory of our own, tailored for our business, in the city of our choice, with plenty of work on hand and in sight, and no mortgage on our premises or our future. In one sense I regret that we are too busy to celebrate."

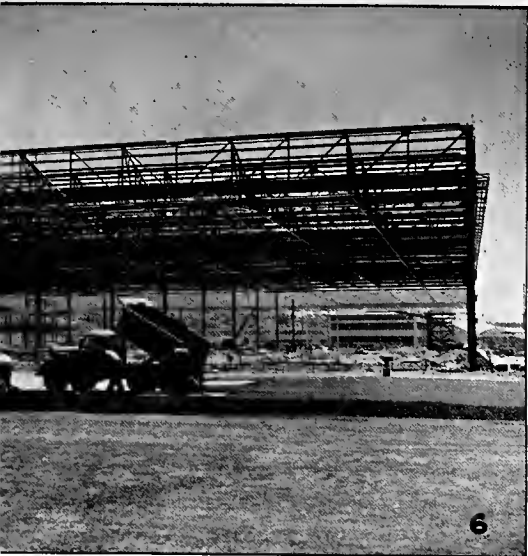
R. H. Fleet, Manager.

relatively free from any contingencies which might arise over the turn of events abroad.

In undertaking present plant expansion to meet this volume of business, a closing agreement was entered into between *Consolidated* and the United States Treasury Department. This agreement provides that

the cost of certain addition excess production facilities, less depreciation, required to meet deliveries may be charged to the cost of performing contracts received by the company, in effect amortizing much of the expansion.

And, the naturally equable climate of San Diego, permits fully 30 percent of



AMERICA . . .

the manufacturing operations in building the airplanes to be conducted out-of-doors. Provision has been made for this by paving the entire plant yard area and providing suitable outlets for power-lines, etc.

Figure 1 shows painter at work on the lower mezzanine floor of the finished parts stockroom, within the Final Assembly building. Aluminum paint is being applied to the structural steel work.

Figure 2 is a view of the interior of the Final Assembly building under construction, from the Pacific Highway side. Note that half of the tremendous amount of overhead steel trusswork has been painted and reflects a high percentage of light, while the remainder, which has been given a dark "shop coat" of primer, has still to receive the "field coat" of aluminum. Workmen in foreground are stripping forms from the foundation wall which will be the base for the long row of windows on the east side of the building.

Figure 3 is another view taken from inside the Final Assembly building. Some

conception of the size and free height within this single structure can be gained from the finished parts stockroom in the foreground. It doesn't touch the ceiling, and yet it is comparable in size to many a small three-story office building downtown . . . and a not too small office building at that!

Figure 4 shows cranes at work hoisting a pre-fabricated section of the truss between the Final Assembly and Final Finish building which will support the outside monorail between the two. Main factory, Final Assembly and Final Finish buildings are now connected by outside overhead monorail system.

Figure 5 caught a steel worker using a transit during the erection of steel on the west side of the Final Assembly building. Huge doors will provide 120-foot openings on this side.

Figure 6. Entire enclosed yard is being paved with asphaltic concrete to take advantage of near perfect "assembly weather" provided by San Diego for out-of-doors airplane work. The steelwork of the Final Assembly building extends southward in this view. Present main building may be seen beyond.

Figure 7. Windows in the sawtooth roof far over head will provide excellent north lighting. Workers are shown installing sash overhead in Final Assembly building.

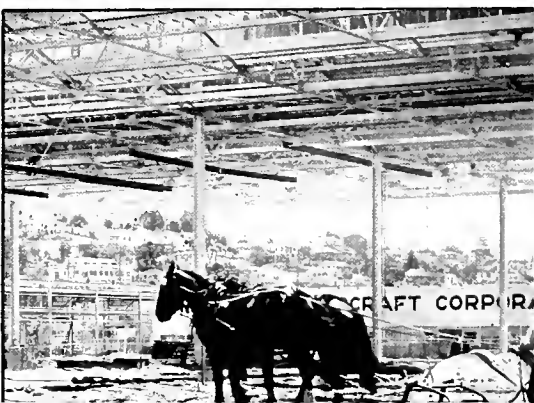
Figure 8. Steelworker uses a truss for a catwalk. Under his arm he has a bundle of tie rods for roof purlins. First time up at such a height from the ground gives the novice a queer feeling . . . the steelworkers drape heavy wrenches, etc. in their belts and tote a heavy load of bolts or the like along the narrow steel trusses with utmost ease, and little concern.

Figure 9. Painting as the steel goes up protects it, aids in securing good lighting later.

Figure 10. Small concrete form being assembled about the foot of one of the support columns.

Figure 11. A team of fine horses handles some of the lighter work left by the powerful hoists and bulldozers . . . or in other words, "All available horsepower" is being employed to complete the job!



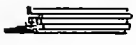
The new additions including the 360x700 foot Final Assembly building, connecting Office building, Final Finish building, Boiler House, outside monorail, storage shed and Experimental building addition, employ some 3,065 tons of structural steel. The Final Assembly building alone accounts for some 2,129 tons . . . most of it overhead.



A man walked into a restaurant the other day and ordered bean soup. Finding no beans in it, he immediately protested. The waitress retorted:

"Well, we got cabinet pudding, too, but you won't find any cabinet member in it."

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DROP HAMMER

By A. E. Hermon

"Oh Romeo, Romeo, where art thou?" asks one of the lead men on the second or third shift—the lead men know. When Carl Reid, third shift lead man, stepped off to Yuma on June 27 with a Brea girl, Miss Beverly Smith, the boys all knew what that dazed look in his eye had been during the past month.

Charlie Pjirron, second shift lead man, also has been "gotten." My, he's a meek man in her company. Charlie is to be "chained" in the latter part of July to a Los Angeles girl, Margaret Khun. It took her four years to get him, but she finally succeeded.

Charlie Kauffman seemed to catch the idea, too. The ring and what-not went on a lucky San Diego girl on June 15th.

All the fellows wish these boys luck and know that there are going to be three lucky girls in town.

Now that Lew Barkuloo is back after recovery from his neck injury, things seem the same in the shop.



The boys are running out of Confucius says—so now it's Mohammed murmers.

HOT SHOTS FROM WELDING

By Wee Willie Winchell Hartman

Al Jerauld pulled a fast one on the boys last week-end by getting himself married to Maxine McCany of National City. The happy couple will be at home to any and all friends at their home in National City. —Good, say we all.

Heartfelt sympathy is extended to Al Gatehell whose father-in-law was killed recently.

Kurt Kruger, who had his "throat cut" at Paradise Sanitarium recently, is back full of vim, vigor, and what have you. Kurt wishes to thank all his friends who were so kind to him during his convalescence.

"Hard-luck" Bommer is at it again—had another wreck, only this time it wasn't his car. Some guys will never learn.

What is this we hear about Clyde Walker winning the first prize down at the Creole Palace for jitterbugging. Tch, Tch, . . . you're too old for that truckin' stuff, Clyde me bye.

Miley bought himself a washing machine recently—only trouble is he doesn't give his shirts time enough to dry thoroughly and he has to wear 'em wet.

Little Chris Moore, Lin Platner's wrestling protege, sure knows how to win a bout . . . he just slugs them cold. Well, that's one way at least. Maybe that's the best way.

Woody Rogers, our champion ball player, recently made softball history by fanning seventeen men in a row after allowing the first hit. Woody got mad and really bore down.

Paul Ferrara, our mighty midget, can't hold the distinction of being the smallest man in the shop anymore—he found another guy who's a half inch shorter and is he proud now that he is a midget giant!

Who was that fellow by the name of Ernie Constantino, seen recently at Mission Beach trying to shoot the spots off all the targets at the rifle range? He didn't leave much for anyone else to shoot at.

Homer "Bee-Keeper" Higbee says he lost one of his queen bees last week. Now

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Now we know how Chuck Keenan gets so many curls in his hair . . . we saw him hauling a load of leaf mold the other day. Pretty good, Chuck.

All these ball players are going to need new uniforms pretty quick if they don't stop wearing them to work. Those silk caps are just too ducky. Our baseball team is going strong. If they can only keep it up, we will have a winner. Of course the Maintenance Department is a little ahead of us, but we still have them to play and with Al Wilson and Ben Kiegle managing the team, how can we lose?

And speaking of hats, did ya ever notice that one of Cecil Flowers? Looks like a "Blondie Bumstead" super creation or something.

Those sandwiches Ray Craft brings for lunch are getting bigger and bigger—he's even out—"Dagwooding" Dagwood with his gigantic conglomerations.

WOOD SHOP CHIPS

By J. E. Hodgson

THE Wood Shop motorcade had another outing Sunday, June 9, to Warner Hot Springs, where many enjoyed the bathing, but not the drinking. Baseball and other forms of play and amusement took the rest of the time. Wrong-Way "Red" Hirlbeck left San Diego at 7:30 a.m. and did not reach the Springs until 2 p.m. Maybe he was looking for Palm Springs. Anyhow, those who were there are already set for another such excursion.

Bob Harshaw's ball team suffered their first defeat at the hands of "Cutting," the score being 5 to 1. Two wood shop players

in their eagerness to retrieve a "fly" ball collided and were slightly injured.

Miss Helen Rogers of Pacific Beach and our Jim J. Paschman are really serious, and are going to do something about it in the near future.

We announced the wedding of Harry Connelly several months ago. It seems that Mrs. Connelly treats him so well that he is out-growing his clothes, in fact, according to young Piper, if Harry does not get new trousers each Saturday he has to find scraps of masking tape on Monday to hold him together. I don't believe it!

The Senior Prom of the San Diego High School was adorned by the presence of our Bill Gertds, on his girl friend's invitation. Maybe this was his reason for omitting to come to work the next day. "The morning after" so to speak.

Johnny Cossar is saving his pennies to buy a portable cuspidor for Al Rhodes. If you would like to know why, ask either of these gentlemen—there is a reason.

"The Album" (see page 16 shows a trio of Rod and Reelers from Wood Shop with their catch of thirteen prime barracuda. They are, left to right, "Mac" McGiffin, Bob Harshaw, and Frank Mische. "Mac" told us they had to reach over and kick the fish in their respective faces to prevent them from climbing into the boat. We believe you "Mac," but there are thousands who wouldn't.

Answer

1. Tonnage does not have the same meaning in a naval vessel, a commercial vessel, or an aeroplane. The tonnage of a naval vessel is weight of the water displaced by the hull of the ship. Tonnage in a commercial vessel pertains to the amount of cargo the ship will hold. This is taken from the old English word TUN meaning a large type of hogshead. The tonnage of an aeroplane is the actual weight of the ship.

When you see an aircraft worker and his wife walking swiftly down the street single file on Saturday night, it's the one in front that's mad.

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THE ALBUM

1. We claim this is a scoop out-scooping Walter Winchell—Young Mr. Charles Curry Aiken, photographed just one and one half hours after the big event. Charles entered the world at just 7 pounds, 13½ ounces on June 11th, and is the son of Mr. and Mrs. Kelman R. Aiken. "Kel" Aiken is assistant chief, finish parts stores. "Kel," Mrs. Aiken, "Kel" junior (aged 3) and Master Charles Curry are all reported as "doing nicely," thank you.
2. Harry Culver, instructor of the San Diego Flying Club is shown beside the club's new Cub "50," and
3. Bill Travis, operations manager of the club, is shown at the controls of one of the club's other planes.
4. "Mac" McGiffin, Bob Harshaw, and Frank Mische of the Wood Shop are proudly showing off their catch of barracuda.
5. T. B. "Mac" MacIntyre, night doorman at the main office, spends a good bit of his spare time at his hobby—cactus growing.
6. Herb Allison, planning department No. 3844, is proud of his daughter and of his handiwork. Young Miss Allison is shown here holding a scrap-book made by Herb. The decoration is hand-carved, and Mrs. Allison painted the background in oil colors—sort of a family affair.
7. Miss Margie Berger, eight-year-old daughter of Cliff Berger of the Wood Shop, has already won fame singing over K F S D.
8. The Experimental Department newly-weds—John P. LaLanne, No. 8046, and the former Miss Mignon M. Largent. April 28 was the big day.
9. Milton "Top Rail" Hangen doing a bit of deep-sea fishing on a recent expedition to the blue water. Hangen is secretary of the Rod and Reel Club.
10. This is to prove that Felix Mattingly, Tank Department, really caught a fifteen-pound sheephead on his first deep-sea fishing expedition. (See June Consolidator).
11. Galehouse, Finish; Offerman, Welding; and Topper, Sheet Metal, are proving that you don't have to be wealthy to own a "yacht." This picture, taken at the Coronado Yacht Club, shows them with their boats—standard fifteen-foot paddle boards fitted with twelve-foot masts, rudder, center board, and all that goes with them for good sailing.
12. Scotty McCarney, night Sheet Metal, is proving the trite saying that "you can take the boy from the country, but you can't take the country from the boy." Scotty is shown at his first love—his garden.

"He could distinguish, and divide A hair 'twixt south and a south-west side."



Surely everybody knows by this time that wordage which doesn't bear fruit should be pruned.

Mrs. New Driver: "They say that I have a short circuit. Can you lengthen it while I wait, please?"



A company is known by the men it keeps.—The Houghton Line.

THINGS THAT COME OUT AT NIGHT

By Craig

WITH SO much being said about hill-billies at present and such a large representation in Production Department, Roy Larceval decided to try this "barefoot business" for himself and showed up for a ball game minus his shoes. Roy played seven innings thus. Bradshaw and Clemson would claim he didn't get the proper reaction, because he kept his socks on.

Bill Wold tried to answer one of Jack Merrill's questions as follows: "A committee having met and considered the proposition laid before it, has decided that in view of impending European events and the generally prevalent turbulent world situation, there is but one conclusion that any well-organized, clear-thinking assembly of diligent, conscientious, and progressive engineering and inspection personnel could possibly arrive at, namely, to drop the whole thing and go have a beer." Like a change order after long and careful consideration, Jack was able to figure it out.

Gordon Browne, but recently house-keeping for himself, decided he wanted to have some friends in for a nice dinner. Gordon bought a roast, got all the di-

rections on how to prepare it from Art Stone, and then at the last minute, got cold feet and took it over to his mother's to have her prepare it. We hear that "Browne" didn't even blush at the compliments on his cooking.

When Oscar Aukley appeared the other night with his shirt torn to shreds we wondered if an over-excitable lead man had lost control of himself to such an extent. Upon investigation it was discovered that Oscar had acquired the tatters getting out of a gas tank.

Jim Wilkinson, rotund foreman in the Metal Bench, is glad for a brief respite from good beach weather. Jim used to go to the beach every day and lay on the sand. He was about to give it up as his stomach would become so sunburned he couldn't keep a belt around it.

Henry Zilz, Cutting, really tangled with a varmint the other evening. Henry accidentally knocked a fire extinguisher off the hook and before he could pin it down he was wet to the skin, choked and blinded by the stream of chemicals.

In the field of sports the Draw Bench bowling team, composed of Dick Scott, Lou Miller, Wayne Williams, Roy Nas-sauer and Lynn Bybee came out on top of the bowling league. The boys won 37 and lost 19 for a very good record. The team must have been a favorite right along because we heard Dick Scott's wife spent the prize money three weeks before the season ended.

Gene Laird, Hull, has a fine baby boy that weighed in at 7 and 3-4 pounds. Gene, who is Scotch, has the boy's application in with Wire already. He figures that he has to pay for all those cigars somehow.

George Wire, Frank Popp, Ray Kendall, Johnny Hopman, S. Sterns and S. Coulter have found their spot. It's a place called Hansen's Lake, and according to reports the fish and game are anxious to give up. Geo. Wire says sometime he wants to find out; the last trip most of his time was spent repairing his car.

Don Rasmussen of the requisition crew was worse off the other night than a dispatcher with a broken leg. Don cut his writing hand so bad that he had to watch

for two nights. Jake Dietzer swears he didn't even know Don was out of action.

The Machine Shop softball team, led by that sterling coach, Matt Weilopolski, finally won a ball game, but not without some fast thinking by Coach Matt. It seems Matt was able to talk three of the opponents, who showed up a little early, into going home on the ground that the

(Continued on page 21)

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TOOL DESIGN TIDBITS

By Maguire

We were all grieved to hear of the unfortunate accident to Phil Koenig's daughter, Phillis, on June 3rd. We all hope for a speedy recovery, Phillis.

One of the heroes of the month is Carl Ludeman who on three occasions last month went to Los Angeles and acted as blood donor for his sister. We are happy to report that she is improving. Nice going, Carl.

Bill Ekdahl will be the major contestant in the next beauty contest. He will submit as evidence his pass photo even in the face of stiff competition from Curly Knight. The pictures really do flatter them.

Don't be alarmed by the smoke screen in Tool Design. It is only the result of the new air-cooled pipe fad. We might add Mr. Chas. Smith is responsible for that, too.

From time to time certain enjoyable Radio Programs leave the air rather mysteriously. So it was with Baron Munchausen and his, "Was you there, Charley?" We all wondered what became of him. According to indications he has turned up in our own Tool Design Dept. in the form of R. Van Meter. If you don't believe me ask "Charley" Smith. In fact we think Van is just a little better than the Baron.

We now have a new member in Kline's group. Shirley is the latest addition. Welcome and good luck.

A "TWO REELER" ABOUT THE ROD AND REELERS

By "Brad" Bradshaw

With summer definitely here for the present, the members of the Rod and Reel Club have been showing signs of activity with numerous reports of good fishing expeditions and successful catches.

On the records of Secretary Milt Hangen are several entries for awards which show an 18½ pound yellowtail landed by Ed Lang, a 16½ inch rainbow trout by Hank Neimeyer, a 10 pound halibut by James Hawkins and a 3 pound 13½ ounce big mouth bass reeled in by P. E. Searay. "Stan" Saville has not

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weighed his "home grown" bass as yet.


Several fishing trips were reported during the month and leading the list was the journey of Glenn Hotchkiss, John Hopman, Ray Kendall, George Wire, Sam Strains, George Landy, Frank Popp, Bill Nixon and Bill Bates deep into old Mexico for some angling in the Laguna Hansen Lake. The catches were fair, the trip terrible, and the amusing incidents plenty, according to Hotchkiss, who remarks "Give me the lake and you take Mexico."

Milt Hangen, Larry Le Maire, Harry Gillen, and Mel Dowse report a trip to the Islands with a catch of thirteen yellowtail (and the big tuna as usual got away). This catch was divided among three of the fellows as Hangen was not in a fishing mood, it is reported. Lloyd Bender, Ray Kendall, Del Drake, and Ed Lang also reported a trip for yellowtail. Lank won the "jack pot" with his catch.

Rastus and Liza were married but a short time when he came home with a big washtub, a washboard and a three-foot mirror.

Liza: "Whut's all de truck you brung?"

Rastus: "Not all, but yo' kin take yo' pick. Yo' kin take de tub an' washboard an' go to work, or yo' kin take de mirror an' set down and watch you'se'f starve."

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CONSAIR FLYING NEWS . . .

Biggest and best news of the month is the fact that our airplane is here. The new 50 h.p. Cub was flown here from Los Angeles by the club's operations manager, Orv Hubbard, and secretary, Steve Brown. The trim little ship had barely arrived before operations began.

Among those who checked out and who are now flying solo are: Brown, Peterson, Blaine and Becker.

Instructor Lou Loyko is reported to be doing an excellent job. Lou recently returned from Oakland where he took the new C.A.A. refresher course for instructors. Members are advised to be on their toes—Loyko lets few things get by unnoticed.

Orv did full justice to his talents by painting our club insignia on the fuselage of the ship. The colors, incidentally, red, white and blue, particularly suit the time.

Miles Blaine made news this month by passing tests for a private pilot's license. All members congratulate him on his success. This is number one from *Consairst* Flyers. More will follow.

Becker and Al Draimen have certainly done their bit to make this club a success so far. These fellows work unceasingly for

the club—promoting Chamber of Commerce publicity, helping grade new runways on the flying field, installing doors on the hangars, etc.

Almost the entire membership was on hand to help move ship and equipment into our permanent quarters on Tyce field, where we have an individual hangar. Also to help grade the new runway. Among the noticeable things of this latter procedure was the handy way Peterson swung the axe during the felling of a tree. Can't be that he's been flying all his life!

All members who haven't already done so are urged to come to the field and look over their possession.



"What is the opposite of sorrow?" asked the teacher.

"Joy," answered the lad.

"And the opposite of misery?"

"Happiness," said the pupil.

"What is the opposite of woe?"

"Giddap," was the response.



A temporary span over a small creek, located in the vicinity of Los Angeles, carries the interesting legend: "This bridge is unsafe. Only superintendents and foremen allowed to cross."

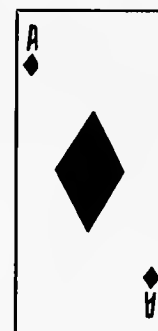
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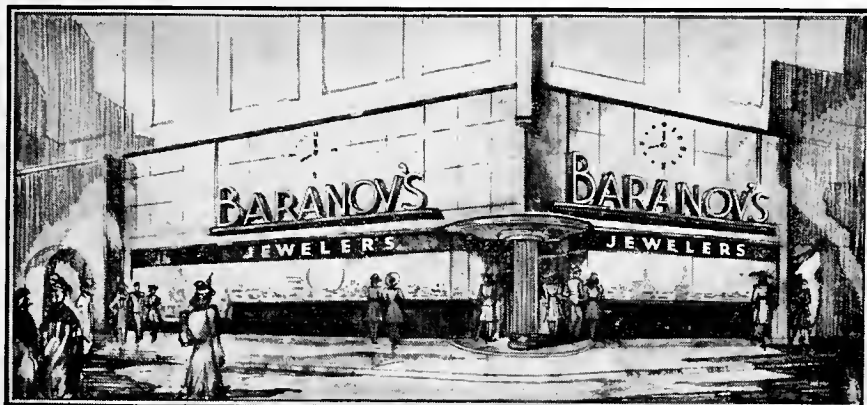
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WHY SKIERS LEAVE HOME

By Philip Faulconer (Loft)

CONSOLIDATED men are devoted to the mild, and, sometimes, even sunny, weather of Southern California, yet there are some of us who spend half the year hunting for snow. For ten successive weeks this winter and spring, two night-shift *Consolidators* leapt for their autos and skis each Friday night and drove through the darkness and dawn to snow, usually three hours, but on other occasions 500 miles and eight or ten hours distant.

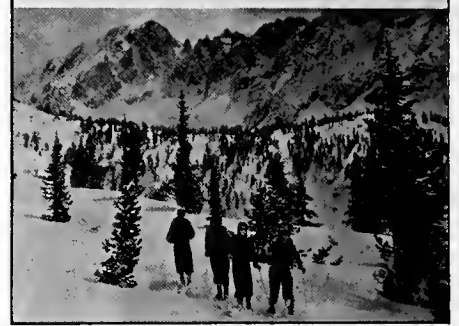
On the longer trips our objective was Mammoth Lakes, Yosemite or the Mount Whitney region; the shorter trips usually meant visiting one of the ski huts (really 50-man lodges), which the Ski Mountaineers Section of the Sierra Club of California has built on Mt. Baldy and Keller Peak, near Pomona and San Bernardino. When we visited a high peak or pass, the nights were spent on the snow, snug in down sleeping bags and little Alpine tents.

Consolidated personnel includes many skiers: Frank Holdener, Jack Duthy, Henry Mandolf and Charles McCabe (Engineering); Harold Stark (Tool Room); the author (Loft); Russ Kern (Hull), who, though not a skier, is a Sierra Club mountaineer; Al Bailey (Spotweld); and George Seiler (Tool Room). The first six are Sierra Club men, Holdener, Mandolf, Stark and Faulconer in the Ski Mountaineers Section.

George Seiler has the distinction of having climbed the Matterhorn, Switzerland's most difficult peak, before he left his homeland for the U.S.A. Although he made many Alpine climbs, George just won't take on our 14,000-foot "American Alps." Maybe we can get him out yet! Many of you probably saw the recent motion picture "The Challenge," featuring an authentic ascent of the Matterhorn, which gives an idea of what George has done.

We would specially like to see Al Bailey and George Seiler in our Club, and Russ Kern on skis.

This season, Toolmaker Art Wullich, a



Upper, This picture shows one of last winter's ski camps in the High Sierras.

Lower, Four skiers at Kearsage Pass, near Lone Pine.

—Photographs by Walter Hennies.

former *Consolidator*, also a Ski Mountaineer, gained several high awards in this state and in Sun Valley, for his excellent skiing. Another member of the San Diego Ski Club, to which most of these men belong, won a number of first and second places in this season's state-wide meets.

The growing group of San Diego skiers is always made welcome on the ski slopes from Los Angeles north, and the more *Consolidators* interested in this sport, the lower will be the cost per individual on trips to the snow. This year's longest trip (in mileage) cost only \$6.00 per person for 1040 miles by automobile, all living expenses on the trip, and at least ten hours skiing, at altitudes ranging from 6,000 to 11,000 feet above sea level.

Whether you are a skier or not, come out this summer to the straw-covered

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practice hill; do a little practice skiing or just look on. Drive out to Mission Valley, about two miles east of Old Town (between Texas St. and Sixth Ave.) and you will spot the straw slope where skiers develop their technic and keep their knees and other parts in trim for next winter's snow. (It's just like snow 'till you fall!)

Let's go, fellows! Next season should see a lot of *Consolidators* off for the snow when the last whistle blows each Friday.

Things That Come Out at Night . . . (Cont.)

schedule was mixed up and that the other team (Paint) was scheduled on some other diamond. If any other manager wants to use this idea, remember who it belongs to. However, Matt was sincere.

J. "Popeye" Petit of Tail Dept. entered a sailboat race at Mission Bay Yacht Club one week. There were 16 boats in the race, and when Johnny was nosed out of 16th place by a mass of driftwood, he decided to give up the sport. Popeye says there were "spirits" in the water around the 5th buoy and he just couldn't make the turn. From what we hear it might have been the "spirits" in the clubhouse that caused the difficulty, because it's pretty hard to go around a buoy that you can't see.

It appears that Yuma is still the place to go. During the past month Paul Abbott, Wing, and Bernice Leitel of L. A.; Joe Margole, Bench, and Evelyn Stevens of San Diego, and Bill Flenniken, Production, and Gertrude Frost of Ocean Beach made the trip and came back in the usual condition after the trip, as "Mr. and Mrs." Paul feels he started off right by getting married at 7 minutes to 11.

Ralph Smith of Draw Bench is a proud daddy. It's a baby girl. Jack Bryant's wife showed him how to hunt rabbits. Jack went looking, Margaret sat and waited. Jack got none, Margaret got four. Galehouse and his little men really pour the work out of the paint shop. What could Army's friend "Pistol Pete" be practicing for? Joe Bettencourt never gets in the "dog house." With Joe it's the "lath house." Geo. Kreiger, who has been ill for three weeks, is back at work. Our best news gatherer, H. Roese sprained a wrist a short time ago. We're glad it wasn't his face, or what would we do for news? Ed Freakley had his tonsils cut and his shoes resoled. He's really a new man. It can happen and it did—Bob Scott got a ticket for jaywalking. You sure make it tough on us drivers, Bob.

AERONAUTICAL I.Q.

1. What is the width of a civil airway?
2. What naval plane is now called the world's largest amphibian?
3. The U. S. Government operates how many radio range stations on the Federal Airways?
4. Name New York city's latest and greatest airport.
5. Aircraft sales in the U. S. for 1939, which were highest in the industry's history, were estimated at what figure?
6. What new air base has been named Westover Field after the late Major General Oscar Westover?
7. Name the term used that designates the breakdown of streamline flow about a body.

Answer Page 24.

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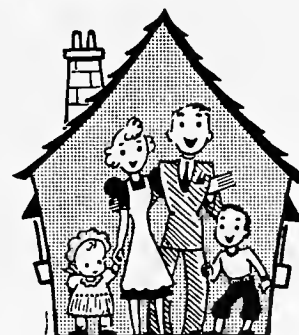
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PRODUCTION MINUTES . . .

By "Brad" Bradshaw

DUE TO another "blitzkrieg" in the planning office that saw the capitulation of Maloney and Jones Plant engineering forces and their retreat "across the channel" has kept me confined to that area for fear of losing what little territory I have left. But brother Jos Maloney has lost his "blonde" so it just seems the whole darn world is in a taking mood. Marie has been transferred to "Accounting," which may be "accounted" for by the fact the paycheck comes from that department. So the question "Which do gen-

tlemen prefer most, "Blondes" or paychecks?"

Fishing occupied the chief diversion for many of the *Consolidated* lads during the month. But several of the smarter fellows like Kellogg, Shonberg, Stockton, Arnett, and myself preferred the cool and comfort of the "hideaway" and such places where you can fish for "two bits" with a beer chaser. Coykendall, Bender, Drake and Ed Lang were out after yellowtail and had some luck, but as usual the "big one" that Coykendall had on the hook got away after towing the boat some yards. Roy can tell you how much he weighed but I still don't believe there is such a fish. Maybe he hooked onto a U-boat by mistake.

Glad to hear Joe Maloney's wife is recuperating from an operation. Joe says "thanks to the Blue Print employees for the nice flowers."

Lloyd Bender finally heeded the plea of some of the night crew and put them back to work during daylight hours. Gracie Koenig says there just 'ain't no romance in the afternoon and is glad to get back on her former schedule. After being accustomed to the night work she sat down where the chair should have been on one occasion—said Gracie, "That's the third time that's happened in my career." Louie Purcell, recently married, said he had a hard time convincing the wife that it was "secret Government work" he was doing nights to keep her from "going to mama." Bert Gimber claims he didn't mind the nights so much as he was planning on raising "goats" in his canyon during the day. Zolezzi was to give him a start with those "perfumery thoroughbreds" of his.

Glenn Hotchkiss reports that the fishing trip to Mexico cost George Landy the end of a finger when he was scaring little girls with tin cans. George Wire knocked a hole in the oil pan of his car which is now

plugged with a rag. Bill Bates cast his reel in the lake and then himself. So the moral is—that fish are easier to get around the corner even if they be "dried herring."

Del Brake, by not knowing his "bean patch," is being held responsible for the cost of an hour's ride by five *Consolidated* "buckaroos," Morty, Drissell, McHugh, Brady and Muck, who claim that they left it to "Lone Ranger" Drake to find the trail that he had marked with "bean patches." After being lost for hours Del insisted that the "patches" must have been moved due to the war situation or else the crows had et 'em.

Those golf rules about "silence" don't mean much to Roy Coykendall after years of "talking it up" on the ball field and bowling alleys. So Roy "beats his gums" when the fellows tee off and boasts he is keeping the game pepped up. Liddle claims Roy's chatter cost him the beers as he trailed Lloyd Bender, Ray Hartmayer and Roy in after a recent afternoon's session.

To give you a little of the month's happenings in what Butterfield would call "hillbilly" style we present the title of number one "Headline Crasher" to Kel Aiken, with his "perfect timing" or "dumb luck" when he appeared at press time with an "El Stinko" cigar and says "It's a boy. Did I make the *Consolidator*?" Wife and baby doing fine with Kel gradually getting accustomed to his new "Aiken." George Young is back again and has the Bench Dept. humming. Sends flowers to a couple of doctors that tried to keep him in bed after he heard Leo Bourden's Welding Dept. was topping his production schedule—Dispatcher Macy hooked a tuna for a lady on the "Sportsfisher" and then "hooked" her for the 18-buck jackpot.

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Be careful, girls, this guy might snatch your pocketbook—Bob Morse begged for parts so long that he cannot get accustomed to his new authority and keeps asking the foreman to do something, then yells, "Hey, I'm supposed to be telling you, not asking you." Jim Eisman still insists that Ben Keigle bought me off to keep from publishing a picture and story of that new home being built around the Keigle homestead. Ben claims the place is still attractive enough for Jim to pass up all the restaurants to arrive at his place at feeding time. Several of the younger "dandies" around the shop wonder why Alice Birse cannot serve the "Blue Print Wolves." Joe says there's a reason and unless she adds a few inches or gets stilts she is useless around those high files, even if she did enjoy that "today I yam a big girl" birthday recently. McCall thought Mulroy wanted him to join the union when he said "Mac, get organized." "Supersalesman" Coykendall after finding that Tom Pitts could only get half his foot into those bowling shoes still insists that Tom's infant son will like to bowl when he grows up. We hear that Dispatcher Marks has been giving out "Boy Scout merit badges" to the foremen for good deeds in getting his parts out. Mulroy will probably be a "tenderfoot" before many moons. Bill Wiley claims that spreading his feet with so much dispatching and dancing is the cause of his stepping into so many "gaboons." Says Bill, "The farthest I missed a 'gaboon' lately was at the Grant during the fraternity convention. We have been wondering about the interpretation of "Smoothie" Dick Minnadue's remark about each new girl friend being "right on the beam." Sometimes a landing might be

on the jaw. "It's the little things in life that tell," said Dan Clemson as he dragged the kid brother out from underneath the sofa. "Mac" McDougal was overheard at Nelson's Aircraft cafe, "I thought I saw soup on the menu." Waitress: "There was some but I wiped it off." Les Matusek leaves his girl friend's house when father tactfully strolls by carrying a box of breakfast food. Ed Generas turns down all Saturday engagements because, states Ed, "That's washday, and there sure are a lot of things to be cleaned up." Don Rasmussen has been named night "contact man." Here's hoping he sticks to business for with those good-looking "femmes" around he might try and make something

out of that title. No report on Al Ballards, Sheet Metal ball hawks encounter with the other undefeated team, Woodshop, but we are certain they haven't "talked" Al out of the game. If the F.B.I. is looking for talent we suggest that Ed
(Continued on next page)

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39 Buick 46-C. Special series convertible 5-passenger club coupe. Full de luxe equipment, custom push button radio, clock, etc. Interior finished throughout in rich blue leather chrome trim and beading; original royal blue finish also trimmed in chrome. All new white side-wall first line tires. Here is the king of all sport automobiles at only.....\$895

37 Packard 120 de luxe 4-door touring sedan, refinished a sparkling gunmetal with ivory trim, all new Firestone tires; spotless interior and has been thoroughly reconditioned to perfection by skilled mechanics in our own shops. A real value.....\$635

35 Oldsmobile 6 de luxe 4-door touring sedan. To save space we will say this car has everything, radio, clock, heater, etc. Refinished a rich golden brown, all new, first line tires and upholstery positively cannot be told from new. For a modern car at low cost see this at.....\$395

37 Buick 81 Roadmaster Series. Refinished a beautiful opalescent blue with chrome trim. This fine car has the big 141-h.p. motor and the long wheel base. Radio and full line of de luxe equipment, plus all new tires, makes this car a real value.....\$695

37 Plymouth De Luxe Coupe. This is an excellent little car for anyone. Has been refinished a sparkling royal blue; equipped with de luxe radio, foglite, etc. All first line tires and spotless mohair upholstery.....\$475

37 Chevrolet Master De Luxe Sport Sedan. This is the 4-door trunk model with knee action, turret top, hydraulic brakes and full de luxe

equipment; has just been refinished and interior is of spotless mohair; entire car has been thoroughly checked for safety and complete customer satisfaction.....\$495

39 Buick 41, Special Series 4-door Touring Sedan. This beautiful car is finished in WASHINGTON blue with chrome; equipped with all new tires and has been thoroughly road-tested to guarantee complete satisfaction. Really a beautiful car.....\$825

36 Oldsmobile 6 De Luxe Coupe. Here is just the car for a salesman; has been refinished a beautiful golden brown; has all first line tires and in excellent mechanical condition. Spotless interior.....\$445

36 Hupmobile 6 De Luxe 4-Door Touring Sedan. This is the model Hupp that made motoring history; streamlined with a beautiful bottle-ship grey finish and is in excellent mechanical condition.....\$495

1939 Buick 41, 4-Door Touring Sedan. This car like many Buicks in our stock, was purchased new from us. We have serviced it and have done all needed to offer the greatest value possible. New U. S. tires.....\$845

37 Cadillac 8—Model 75 Touring Sedan. A high grade car in the best of condition. New tires, radio and extras.....\$785

38 Pontiac 8—Business Coupe for power, comfort and economy. See this neat coupe. Full price.....\$565

37 Buick 46C—Convertible Coupe. Just reconditioned in our modern shop. New tires, radio and extras. Full price.....\$685

SEE THESE AND 75 OTHERS

ROBERT D. MAXWELL CO.

BUICK DISTRIBUTOR

Main 5011

SAN DIEGO

Broadway at State

Own Your Home!

Use your rent money to pay for a home. The small down payment starts you toward financial stability. Plan now for the years to come. Excellent homes in Bird Rock, South La Jolla and Pacific Beach... Fast highway and bus service to Consolidated.

Robert G. Robeson

REALTOR

5545 La Jolla Blvd. Phone La Jolla 2414

Hager and Russ Gaughen should inform them of Evelyn "Hawkshaw" Parkins work in tracking down those "fifth columnists" process cards.

Owen Stockton who is sharing quarters with Frank McHugh is accusing the latter of "photographing" the ham on his sandwiches.



- Richer, stronger blend
— more cups in every
pound!

S. J. WINES COFFEE CO.

SEE THE 1940 INDIANS

INDIAN MOTORCYCLE SALES CO.

GUY URQUHART

1041 Columbia St. San Diego

Open Evenings • Terms

Bender, Sanville and Hibert evidently had a little explaining to do when they got home after the Rod and Reel club meeting and their "pickled smelt throwing act" which was in competition with Russ Kerns' entertaining pictures of "where he's been that I know darn well I'll never get."

Rowan, Gerstmier and Perry of Tool Design say they don't mind helping Cline and Smeltzer along for a few days as their wives may go on a vacation, and the favors can be repaid.

The monicker J. C. Thompson which is attached to a Wing dispatcher, could be used to good advantage in getting parts through inspection provided "Chief Jack" didn't get wise.

When I join the "mystic nights of the sea" I will notify Wiley, Willoughby, Sealey and Pasek that they will be "bounced" from our dances just as I was after "crashing" theirs.

"Tell what you know about nitrates."

"I don't know much about them, but they are cheaper than day rates."

ANSWERS

- 20 miles.
- Consolidated's XPBY-5A
- 286.
- North Beach.
- \$200,000,000.
- Northeast Air Base, Holyoke, Mass.
- Burble.

Tess: "You can't believe everything you hear."

Bess: "No; but you can repeat it."

TANK HIGHLIGHTS

By Herthel Chappell

California newcomers, Bob Summers, Don Short and James Darr came to work after Memorial Day with their lily-white skins dyed lobster red, due to over-exposure. It is excusable for newcomers, but imagine Bud Parson, veteran of the beach, being burned to a cinder. Will you never learn, Bud?

Flash!! Did you know there is one amongst us who doesn't read the *Consolidator*? The reason, so he says, is because he can't find his name in it. Well, here it is, Tony Barone, will you become a regular reader now?

More sleep or different hours is required by Benny Shourds. His girl friend works at night, and our sleepy boy has to wait until the wee hours of the morning before he can see her. She doesn't get off until 2 a. m., and Benny has to take her home. A solution to your problem, Benny: go see the man who ties the knot.

Jim Saftig has been seeing a lot of a certain young lady, and it is rumored that they might honeymoon at Catalina Island, providing his speed boat will carry them that far. By the way, fellows, do you know that Jim, our strapping, big athlete, has a new name? Mighty sweet, too. His one and only calls him "Baby."

Can you believe it? A man who isn't interested in women or so he said. The man is Dante Rossello of the night shift. It could have been something in your eye, Rossello, but the fellows who were with you claim it was the girl crossing the street that caused you to smash into the back of another car, knocking the bumpers off. Chip in fellows, let's buy Dante some blinders before he gets into trouble.

RETREAD TIRE SPECIAL

2 FOR \$ **6.95** EXCH.
ANY Passenger
CAR SIZE
Retreads or Recaps

QUALITY TIRE SALES CO.

918 1st Ave., at E

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BUDGET

IF YOU
WISH

AASE (ACE) BROS.

bring you the best in LUNCHES, SANDWICHES, COLD
DRINKS and TOBACCO



3 LOCATIONS--Inside North and South Gates and in Back Center Yard

FLY Over the Highways
On a 1940

HARLEY-DAVIDSON



W. J. RUHLE

929 India Street

San Diego

Write for Catalog

Open to 8 p. m.

Terms

Announcing—the arrival of Mary Ann on May 16th, weighing 5 pounds, 7 ounces. Proud parents are Mr. and Mrs. E. Backhaus. You're late with the cigars, Ernie.

Do you know: That Dante Rossello, Williams, Hoover and Sparks are seen in Tijuana every Friday and Saturday night? Maybe that is why they are sleepy and broke every Monday morning . . . That Ted Schwarz, Duke Counahan, Jule and Ziggy Turoski were out celebrating until five o'clock in the morning? The big occasion—the Turoski brothers finally kicked loose and bought themselves a car. Can

you beat it? . . . That Bud Parsons, you know, the killer diller of Mission Beach ballroom, was seen wandering around the beach Sunday, June 2nd, all by his lonesome? What's the matter, Bud, have you joined the "Lonely Hearts Club?" . . . That Jimmy Allen and the Mrs. were out strolling around Mission Beach—Jim was dressed a la Hollywood. Wow! What a pretty suit! . . . That Bob Summers was spotted at Mission Beach with five girls clustered about him? What does Bob have that we lack?



Pilots of the western division of T.W.A., Los Angeles to Albuquerque, became the most experienced group of pilots in the world recently. They reached the 20,000,000-mile mark and were honored by company officials on the final day of Air Progress Week.

The three top men in flying experience were Eddie Bellande with 2,352,000 miles; Jack Walsh, 2,170,000; and H. H. Holloway, 2,240,000.

The airline has been flying between the east and Los Angeles since May, 1929, and most of the men received all of their flying time on this route in the last 10 years.



Elsie: "What kind of husband would you advise me to get, Grandma?"

Grandma: "You just leave husbands alone and get you a single man."



Ironically, Juan de la Cierva, inventor of the Autogyro, was killed in a crash of a conventional plane. . . .

The Best News

IN MANY DAYS



While other manufacturers are raising prices on their new cars, Ford Motor Co. has reduced.

The Big 85-H. P. Coupe

fully equipped and delivered in San Diego for only

\$799⁰⁰

See and Drive It Today



HILTON Motor Co.

1202 Broadway



TODD'S

Complete Men's Store

Give Liberal Credit to Workers in the "Consolidated"

SEE THESE VALUES • \$10 SAVINGS
Guaranteed

\$12.50 Value **Sport Coats 7.95**

Pants and Slacks { **2.95**
\$6.95 Value and **4.95**

Choice Selection of

2-Pant Suits
22.50 18.50 and \$15

Home of ADAM HATS

TODD'S

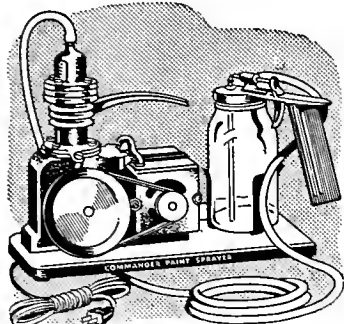
Complete Clothing Bldg.
Cor. 5th & E St.

People who receive moderate salaries will find Bonham Brothers "Economy Service" completely satisfying.

Phone Main 5114

Bonham Brothers
Mortuary
"Thoughtful Service"
FOURTH at ELM

SEARS



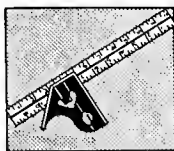
Paint Sprayer

Includes Gun and Hose

975 2.50
DOWN
Easy Terms

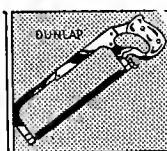
Small lightweight (only 8-lbs) . . . easy to handle! Developed for everyday use for jobs around home, garage or shop. For 110 volt.

Smart Mechanics Know That Sears Is Headquarters for Dependable Tools at Money Saving Prices!!!



Comb. Square
98c

Adjustable head complete with level and scribe.



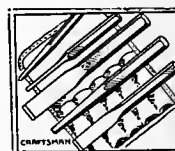
Hack Saw
1.29

Extra rigid frame for all around shop use.



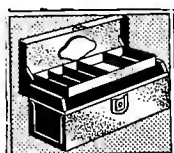
Screwdriver
1.29

Automatic screwdriver complete with bit.



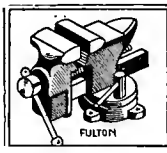
Chisel Set
1.19

Five piece set, Craftsman quality, guaranteed.



Tool Box
1.19

Spill proof tool box with cantilever tray.



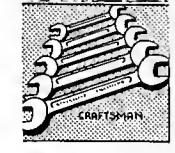
Swivel Vise
2.29

Vise with 3-inch steel jaws, swivel base.



Tin Snips
79c

Heavy quality tin snips for years of service.



Wrench Set
1.29

5 "Craftsman" wrenches, open end. Guaranteed.

SEARS, ROEBUCK and CO.

Sixth Ave. and "C" Street

Franklin 6571

Special!
Here is a Real Buy!
New 2-Bedroom stucco house
SMALL DOWN PAYMENT
Monthly Terms to Satisfy
Call BENSON LUMBER CO. for
full details. Phone Main 6194

Do You Know...



Five Ocean Rafts of logs moored in San Diego Harbor, containing 30 Million board feet of lumber to be manufactured at our Mill in San Diego. Width, 52 feet; Length, 1000 feet; Contents, 6 million feet; Binding chains, 200 tons; Depth below water, 24 feet; Height above water, 12 feet; Towed 1000 miles from Oregon.

- That Benson Lumber Company owns and operates the only saw-mill in Southern California?
- That Our annual payroll of \$250,000.00 is spent right here in San Diego, and that our annual taxes of \$120,000.00 are a great benefit to the City of San Diego?
- That San Diego's "Heaven on Earth" climate is IDEAL for air-drying lumber, conceded by government authorities to be the best method of drying lumber?
- That San Diego homes are protected from termites by pressure treated lumber produced locally only by our company?
- That Financing service is available through the loan and escrow department of this 33 year old company?
- That visitors are welcome to see the lumber mill in action?

The Pick of The Trees

• BENSON LUMBER CO. •

CONSOLIDATOR



GUBA SCORES AGAIN . . . (see inside front cover)

AUGUST • 1940

GUBA SCORES AGAIN

RICHARD ARCHBOLD'S twin engined *Consolidated* Model 28, the "Guba," has scored again in a non-stop, transcontinental hop from San Diego to New York. Taking off at 1:55 p. m. on July 10, the world-girdling and record-breaking flying boat made the non-stop flight in 15 hours and 35 minutes, clipping a half hour from the time held for this same distance by the first Guba.

Aboard as members of her crew were: Russell Rogers, chief pilot; Douglas Kelley, co-pilot; Stephen Barrinka, flight engineer; Harold Ramm, radioman, and Hector Nicholson, assistant flight engineer.

Carried aboard the Guba on its dash across the continent, was a message of greeting from Mayor P. J. Benbough to Mayor Fiorella LaGuardia of New York, which read:

Dear Mr. Mayor:

It gives me great happiness to take this occasion to send greetings to you, the mayor of the world's greatest city, from the city which encompasses the largest naval base on the Pacific coast.

The records held by the "Guba," and the remarkable flights made by the navy long-range patrol boats, of which the "Guba" is a counterpart,

not only testify to the splendid ships flown by the navy but demonstrate how these "flying battleships" could span a great continent in a few hours to confound an enemy on either coast should the need arise.

It is my hope that this flight of Richard Archbold's famous ship will do its share to convince Americans that many more such flying boats, as well as additional military and naval equipment provide the safest way to preserve our democracy.

(Signed) P. J. Benbough.

The Guba, by way of recalling some of its achievements, was the first airplane to

be flown around the world at its greatest diameter. First flying boat ever to fly around the world, holder of the longest flying boat over-ocean, non-stop flight record (from Dakar, Africa, to St. Thomas, Virgin Islands). First airplane to cross the Indian Ocean (the last remaining ocean to be conquered by air), and the first flying boat to cross Africa.

Another good thing about telling the truth is that you don't have to remember what you said.

If you brood over your troubles, you'll have a perfect hatch.

**"Taxi" over to
SAFEWAY and fill up
your "Galley" with
Better Foods
for Less**

MADE FOR PUNISHMENT!



QUESTION "What do you mean, 'RPM' is made for punishment?"

ANSWER The blistering temperatures that modern motors whip up are so terrific—that "weak-sister" oils can't "take it." They just don't last—and they deposit the carbon, sludge and varnish that

play mischief with a motor's delicately adjusted "insides." But "RPM" keeps your motor free from these harmful deposits. And you can't beat it for mileage!

STANDARD OIL COMPANY OF CALIFORNIA



AMERICA'S PREMIER MOTOR OIL • 25¢ A QUART

CONSOLIDATOR

Volume 5

August, 1940

Number 8

MUSIC NOTES BY THE MAESTRO AND A GOOD TIME WAS HAD BY ALL—

On Tuesday evening, July 9, the *Consolidated* Orchestra was honored by an informal visit at rehearsal by the following executives, their families and friends: Major and Mrs. Fleet, Mr. and Mrs. Gott and daughter Stephanie, Charles Leigh, Mr. and Mrs. James Kelley and daughters Jacqueline and Susanne, Mr. and Mrs. William Shanahan, Mr. and Mrs. Ingold, Mr. and Mrs. Robert Morse and many friends, wives and sweethearts of the musicians.

With apologies to the movie magnates, "stupendous," "colossal," "magnanimous," were mild terms compared to the comments made by all those attending—in fact, Major Fleet asked for several repeats of "Stars and Stripes Forever" and "Anchors Aweigh."

There will be another occasion very soon for the boys to show what they can do, for the benefit of all factory employees. A notice of the definite date will be posted on the clocks.

The following men comprise this *Consolidated* orchestra, those wishing to join may contact any member.

| | | |
|---------------|----------------|---------------|
| Famme, J. H. | Williams, C. | Culver, W. R. |
| Minella, A. | Wells, M. J. | Copsey, K. B. |
| Abels, R. M. | Woerner, A. | Hunter, C. E. |
| Tall, Nathan | North, J. D. | Bunker, W. E. |
| Brown, J. R. | Solomon, S. | Carson, Otis |
| Williams, R. | Creason, J. L. | Moody, Don |
| DeRimer, Wm. | Foley, J. | Paschall, S. |
| Ernst, John | Boerste, A. | Pease, R. C. |
| Warren, F. | King, L. C. | Davis, T. S. |
| Sweet, A. E. | Lazzelle, H. | Choate, A. K. |
| Bonderson, A. | Harnack, G. H. | Nobel, B. W. |
| Newell, D. | Dawson, Bill | |
| Hamlin, J. | Peery, Bill | |

E. G. Borgens, Director.

Cupid's efforts will culminate August 3rd when Lena Wagoner and John J. Melega became united. Congratulations and best wishes.

A wise man discovers where he is wrong
—a fool proves he is right.

SAVINGS PLAN

WE have arranged with the main office of the Bank of America, 615 Broadway, San Diego, California, to open what is known as Industrial Allotment Accounts which are in reality savings accounts for employees.

Each employee can make a weekly or semi-monthly allotment of his wages and the company will deposit the amount allotted to the credit of his account with the bank.

Statements showing the amounts on deposit will be sent to each employee as of July 31 and January 31. Interest will be credited semi-annually at prevailing interest rate.

Withdrawals from these Industrial Allotment Accounts can be made in the same manner as you would withdraw funds from a regular savings account. If more than one withdrawal is made during any interest period, the employee forfeits the interest for that period.

Applications to open Industrial Allotment Accounts can be obtained from the cashier in the accounting office after working hours.

These Industrial Allotment Accounts should not be confused with Christmas Savings Funds.

Deposits can be discontinued at any time the employee wishes.

We arranged this plan in order to provide some means for the employees to save the extra compensation they are now receiving for overtime work.

Benny Kell, Hull leadman, was also pretty excited last month, for the stork stopped by the Kell household and left a baby girl. "It looks exactly like our first little girl," said Mrs. Kell with a smile. "Yeah," said Benny, "one a year for five years and I'll have Cantor beat."

Our barber looked at a young man's sleek hair and asked if he wanted it cut, or just the oil changed.

I wish to take this opportunity of welcoming into and introducing to the *Consolidator* family my new assistant, Ralph A. Smith. Being a star athlete and interested in clean, wholesome sports himself, we will now be able to promote enough of different events to keep everyone interested. If you have a sport you would like to enter, please send your request, name and clock number to the Welfare Department and we will endeavor to supply the amusement you ask for.

Your suggestion may promote something good . . . help us help you.

W. C. Gilchrist, Welfare Director.

Born to Mrs. and Mr. Willard Fink of Draw Bench, a son, Wayne Henry Fink. Young Wayne Fink checked in at 8 pounds 2 ounces on Saturday, July 13, and all are reported doing nicely. Master Wayne Henry Fink is also the grandson of Henry Fink, plant electrical maintenance foreman, mentioned elsewhere in this issue.

FASTEST IN THE WORLD

There may have been some argument as to which one of the powered scooters used to get around the plant is the fastest, but George Newman's certainly traveled the distance from the south fence to the north in the shortest time. This was an elapsed time of about six seconds! Which is about the time it takes to dial an interoffice phone!

Believe it or not, this is a fact recorded by several witnesses. The scooter was stowed aboard the XB-24 for possible use at the terminus of one of the plane's flights and, according to the official Army statement the XB-24 includes "a speed of over 300 miles per hour".... and our plant is approximately one-half mile long. This probably has set an all-time record for scooter speed over the plant yard.

Weighing in at 6½ pounds, James Robert Chess, 2nd, entered this ring to delight the hearts of his parents June 15th.

FACTS ABOUT THE FEMMES

HAZEL BRINK of the Production Department and Fred Robertson of the Paint Shop were married in Yuma on Thursday, July 4th. Their picture is on page 18. They were accompanied by Lois Campbell, Frank Buzzelli and Mr. and Mrs. Al Griffith. Congratulations! Mary Eleanor is once again a beach resident, having rented a cottage in Old Mission Beach with several friends. At present she is sunburned beyond repair. Marcella is another femme seen frequently at the beach and she looks plenty nice in her Hawaiian playsuit. Ruth Sears is also a beach addict and proves it by living there the year 'round. Alice Birse lives near the beach and spends her week-ends in the mountains. Avis Clarke talks often with her brother in Waco, Texas, via radio. Her brother has a short wave radio set and he contacts local short wave owners who phone Avis to come over and join in the conversation. This sounds like a pleasant way to spend an evening . . . and no enormous telephone bill to worry about. Bea Jackson's "old faithful" Nylon hose finally went the way of all silk stockings. But they lasted through eight weeks of daily wear—washed every night, of course—and that is a record for silk hose. The girls all send regards to Eva Wiseman and hope she will be back soon. We've decided one of the best arguments against working on Saturdays is that it is "just another day to think of something to wear." And then there's the old one about the little calf who walked up to the silo and said, "Is my fodder in there?"

ROD AND REEL NEWS

By "Brad" Bradshaw

THE Rod and Reel Club not only "rolled out the barrel", but finished up several of them, and coupled it up with some fancy "shindigging", eating and singing at their annual dance. There was free beer and eats so they lost money on "Dutch" Kline, Al Leonard, Louie Purcell and others, but the absence of Jack Mulroy and Harvey Muck helped to "balance the budget." Had a little "dirt" on Frank Popp but the gal he was "spooning" turned out to be his wife of 20 years. Glenn Hotchkiss always thinking of work, hung a few "O.K. to rivet" and "rejected" tags on some deserving guests. Tom Coughlin produced the "chatter" and did a swell job. The only guys who got out of line were Ralph Way and Tom Butterfield who were caught "red handed" dancing with their *own* wives. Roy Cockendall, Ronnie Miller, and Walter Byer were very prominent in "supervising and processing" things while they were able and Mrs. "C." did a good job as "matron." The most inactive man off the dance floor was Lloyd Bender who had charge of the "soda pop" distribution but made up for some of it by "cutting a rug" to the music

of that "ivory pounder" Bill Hartford and his band. Del Drake, after finishing off his fourth bottle of "Ne Hi" boasted that next year "He yam a man" and will demand a corresponding drink. Mr. "G." Bert Gimber to you less familiar people, had his pants fastened with rubber bands which was not a bad idea with his need for expansion.

FLY Over the Highways
On a 1940
HARLEY-DAVIDSON



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929 India Street

San Diego

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Open to 8 p. m.

Terms

SAN DIEGO FEDERAL



Any amount ★
opens your "San
Diego Federal



Tax-exempt
features

Insured **SAFETY**
Through 10th of
each month, divi-
dends from the 1st

Sav-
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ac-
count

Since
1885
never
a loss in
yield or
principal. ★

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Sixth
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ROY HEGG, President

INVEST WITH "SAN DIEGO FEDERAL"



Give HER the thrill of owning a truly fine betrothal set from Jessop's. Sets come in white, natural and coral gold and platinum and range in price from

\$19⁷⁵ up.

The convenience of special credit terms is extended to "Consolidators."

"MACHINE OIL"

By Al Pfeiffer

PRIZE of the month goes to Johnny Worobec for his splendid drill template. It was so good that the boys made a medal of it and presented it to him with due ceremony.

Did anyone ever see a more beautiful colored optic than Crenshaw sported for a couple of weeks? Confidentially, he admits that he talked when he should have been listening.

If you've been to Ocean Beach lately and seen the girls grouped in circles talking earnestly on some topic unknown to you, here's the lowdown: It's that 4 pass. Packard convertible coupe in deep maroon with leadman John Howard at the wheel. My what a pick-up!

Survivals and late arrivals practically describes Owen Gandee's situation a few Saturdays ago. Those "angels" in the Sky(room) might have at least dropped him to earth early enough for work. Particularly when it's overtime you are being paid for.

At the local Goodwill establishment, what big little man earned for himself the sobriquet of "Pop"?

Story of the month: It seems that one of our boys decided that a motorcycle would solve his problem of transportation. After

taking possession of aforesaid vehicle, came the question of getting it home. His wife readily agreed to drive the car so that left the cycle for our hero. For several miles he sped along with the ease and daring of a veteran. Then suddenly without warning he came a cropper and his beautiful wife just about ran over him. That sure put him in stitches, but it is not as ludicrous as it appears, take it from Howard Cooper.

Ivan, the terrible, of the grim grimace is caricatured by Fred Hudson since he grew that new mustache. Says Fred: "It adds dignity and may even scare some of the new hands into drilling holes correctly.

Note to the boys on the third shift: If at any time you should fail to attract the attention of a certain leadman and if you don't like the name Paul Peter, just call for "Pappy." Results are guaranteed.

Norm Kissel is aptly described as the little man with the mustache, felt hat and brown overcoat. When asked how he stands all the heat in his regalia, Norm politely replied that—the thought of all those poor orphans over in Europe makes him cold all over and he added: "It feels so good when I take them off."

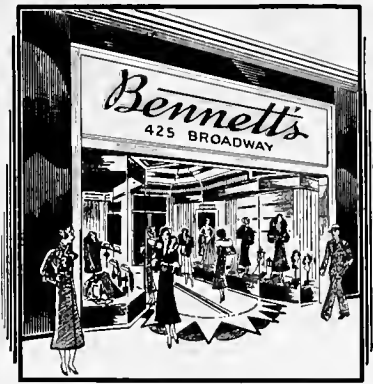
Every shop has at least one, but Bob Williams' brigade includes not one, but two, Wielopolskis. Only time will tell whether we are blessed or not.

The ordinary person wouldn't believe it but Charlie St. John is really attached to that small Brown & Sharpe turret lathe. Can't be separated from it in fact.

Fish can't abound like the fish stories we've heard lately in the Machine Shop. Dick Schwartz's arms are getting so long from telling those yarns and patting himself on the back that something will have to be done about it. It would be terrible to have him report to first aid and say that he stepped on his hand.

Going to the other extreme, can anyone imagine a handsome fellow like M. Burdette Thompson refusing to dance with a beautiful girl just because he didn't wear his Sunday suit.

Crist Gonzales will make no more trips southward. His last visit south of the border almost resulted in a permanent settlement.



The Newest STYLES
on Bennett's
Courteous
Convenient **CREDIT**
NOTHING
DOWN
NO INTEREST OR EXTRAS

Your employment with Consolidated puts you, and your family, on our preferred customer list. Choose the clothes you need and just say "Charge it." Enjoy Bennett's values.

Save
25%
on FUR
COATS
and Jackets
Pay \$250 Weekly

Now, during our ANNUAL
AUGUST FUR SALE.
Advance styles in popular Furs.
Every Fur Coat or Jacket fully
guaranteed for One Year. No
interest or extras.

No Down Payment
Most Liberal Credit
Terms in San Diego

BENNETT'S
Clothiers
FOR MEN AND WOMEN
Between
4th and 5th
AVENUES
425 BROADWAY

FORD HOTEL
SHOWER BATHS
Rates \$4 up per W'k
Close to Consolidated,
Business, Shopping and
Theatrical Districts
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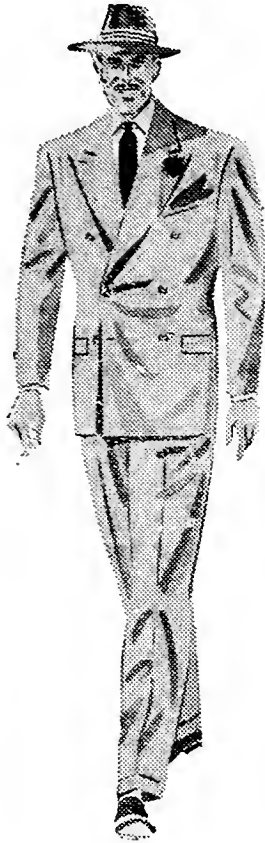
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STEPPING AHEAD . . .

Effective July 16th, on the resignation of Don Frye, J. H. Waterbury became Personnel Director of *Consolidated Aircraft Corporation*.

"Bud" Waterbury, as he is known to his many friends in and out of the plant, was born in Buffalo where he attended the city schools and a prep school. He followed this phase of his education with some additional training in the University of Buffalo evening session.

On December 9, 1929, Waterbury started to work for *Consolidated* as a Timekeeper and Clerk for Mr. J. L. Kelley, who was then Factory Superintendent. During the next two years he attended evening classes in ground school instruction, and the construction, operation, and maintenance of aircraft. Shortly after "Bud" moved to San Diego with *Consolidated*, he was made assistant to Mr. Kelley, who was then made Factory Manager, and he worked in that capacity until November, 1939, when he was transferred to the Personnel Department to become Assistant Personnel Director.

At present, in addition to his duties as Personnel Director, Bud is an active member of the Aero Club of San Diego, and Treasurer of the San Diego Junior Chamber of Commerce. His chief diversions are sailing and shooting.

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WOOD SHOP CHIPS

By Ernie Hodgson

HARRY WALTER is back, full of "vim and vigor" after his vacation during which he visited the redwood forests and two huge saw-mills. His itinerary also covered a visit to the Howard racing stables at Willets, the home of the famous "Seabiscuit."

At Kearny Mesa June 30, our Al Young placed sixth in the gas model plane meet of the "Aeroneers."

When some of the boys went fishing the other week-end, Frank Mische took along his new camera. He apparently took a fine bunch of pictures—except that he never noticed the shutter was set for time exposure, result nil.

Tommy Bell and Art Younghusband sped home Friday, July 12. Apparently the wood surrounding their homes was afire. Fortunately, the wind veered enough to prevent the destruction of "Suncrest." Younghusband, who by the way, was recently elected mayor of the village, stated that the fire was too close for comfort.

The Wood Shop No. 1 softball team has high hopes of winning the pennant this season. Up 'till now they have won 10 and lost 1. You should hear what they say about Frank Mische as an umpire.

NIGHTS

After a long silence, the gang on nights in the Wood Shop has decided to let the world know of their existence. It is evident that wars and rumors of wars are only of secondary importance to these lads, cars and more cars being the first subject of interest.

The new and used car dealers seem to have cornered the boys soon after the 48-hour week was announced, for we hear of the wonders of the following:

Milt Stuart sports a new Chevvy, Jones an Oldsmobile, Mr. Pitts (leadman, 3rd shift) a new Chrysler. As usual, however, Ford heads the list. Bill Thomas has a Mercury and one of those new Super-deluxe trailer homes to follow it around. Ed Lindblad, Carl Vogt and Amel Tideman all followed suit.

Miss Martha Louise Seigler took Lee

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Eggers for better or worse on April 19. Our wishes say better and better.

Betty Jane Kemp and Chalmers Bayless also traded single blessedness for matrimonial bliss on June 29 . . . may it be endless.

Quite a few of the boys from Wood Shop, including Bill Hardwick of night shift, will leave for camp with the National Guard August 4 to 24.



TOOL ROOM, SECOND SHIFT

By V. Hill

When the Tool Room and Machine Shop tangled in a softball game the fur flew—and a little skin along with it. In their last game there was a number of casualties, in fact few of the players escaped without some bruises. The catchers had a very bad day. Duncan of Machine Shop suffered a dislocated adam's apple and Saulfield of Tool Room a broken nose and badly bruised face; neither catcher had a mask. A collection was taken up in the Tool Room to buy a catcher's mask and help pay the doctor bill of their catcher and in no time at all about \$9.00 was raised. Everyone gave, thanks to Howard Daw, the "collector-upper." Saulfield says thanks a million to all who gave and he is very proud of his new catcher's mask.

The second shift Tool Room won their first game of the second half softball schedule from an improved Tank team. Speed, our pitcher, allowed only two hits. The other teams in the league were warned to watch out for the Tool Room as we have strengthened considerably and Howard Paw is retiring from active playing duty and devoting all his time to managing the team. The Tool Room has a few loyal rooters who come out to every game and pull for them, win, lose or draw, and it helps the team a lot. Let's have more Tool Room men and their families out to these games. The games are all on Tuesday this last half and it doesn't cost a thing to get in. The team will be looking for you at the games, so come on out.



LEAVING . . .

It was with a feeling of deep regret that Don Frye's many friends received word of his resignation effective July 15, 1940. On the eve of his fifth anniversary with the *Consolidated Aircraft Corporation*, Don has announced his intent to enter the aircraft manufacturing business for himself.

This country has satisfied its need for a good 5c cigar, but there is still a strong need for a good low priced airplane, so Don feels, and it is in this direction that he plans to direct his efforts. He intends to build and fly his first ship in Kansas City; definite plans of his manufacturing program being withheld until later in the year.

Don has had a varied career in aircraft, beginning as he did at the age of fifteen years as one of the youngest licensed pilots of that time, barnstorming with a flying circus, air mail pilot, and later in various positions with Douglas Aircraft and *Consolidated Aircraft Corporations*.

Our best wishes go with you Don, and our sincere hopes that all your troubles will be small ones.



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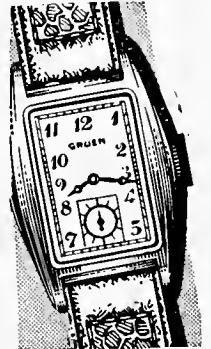
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CONSAIR FLYERS CLUB, INC., NEWS...

By Barney Farley

AFTER scarcely two months of operations, Consair Flyers Club is beginning to show definite results as members are obtaining their C.A.A. ratings. Orv Hubbard recently became the proud possessor of a commercial pilot license, Miles Blaine passed tests for a private license, and Elwood David and Steve Brown are progressing towards that first goal.

A news item which should be of much interest is our recent incorporation. This item makes Consair Flyers not only an excellent club to obtain flight training, but lets one know that its prospects have been looked into and sanctioned by the State of California. This should ease the

minds of those who might be a bit jittery about "those flying clubs." The work of Maxine Hubbard in taking care of the legal details of this matter is appreciated by all members.

A member who is reported to be burning up the air is Elwood David who is very determined to obtain his rating.

Due to an increased demand for low cost flying, we have decided to expand our organization, adding a larger and speedier ship to our fleet. This ship will be a new three-place Cub Cruiser, believed by all to be the last word in light aircraft (has a 2S rating, by the way). Its fast cruising speed matches it against much heavier ships.



GLIDING AND SOARING

By Vic Korski

On the second Friday in July the San Diego group of the Associated Glider Clubs of Southern California held their regular monthly meeting. In the business of the meeting there was an open discussion on the possibilities of obtaining a single-place ship for solo pilot training. There are now enough students and pilots, such as Harry Comer (tool room), who are qualified to accept the advancement. Josh Wilbur (lofting) and Ray Parker (model shop) tried to convince treasurer Jerry Littrell (Inspection) the necessity of such a sail-plane.

The latter part of the meeting was devoted to the narration of experiences flying in the Southwestern Gliding and Soaring Meet. Dick Essery displayed and explained the group of barograph tracings that he collected. Probably the most interesting of these was the trip of 123 air miles from Wichita Falls to Dallas Texas, on which I had the good fortune to be along. The greatest altitude reached was approximately 3000 feet and there were times when the ship was within 600 feet of the ground. A haze hung about four thousand feet with the sun breaking through occasionally creating weak thermal action. It was by fighting tooth and nail that goal was made.

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TOOL ROOM

By Pat Paxton

Charlie Tailer, tool room foreman, has now moved into his recently completed home in the La Mesa Heights District.

Robbie Robinson and Elmer Boslick have quite a time rescuing Herman Laesher's fish pole as Herman continually deserts his line to head for the galley to "take on" food. We understand Plympton and Harry Dillen were doing some fancy fishing from the sundeck.

Frank Delaney finally had to break down and buy a new badge.

There is a story about Nuvak's checkered pants but we can't get the low down as yet.

Bob Atchinson has been transferred into tool design . . . congrats and best wishes in your new job, Bob.

Herb Daley chisled on fellow clerk Vinsel while he was gone but all is now well. Herb just made up with his old girl friend—he hopes.

Karsten asked Fisher to remove his shop coat on account of the heat, but Fisher said "nothing doing" until Bob Lamont takes off his sweater.

Travis H. Allen, San Diego, was married to Lana Fife, Corona, California, climaxing a six months' engagement. The ceremony was performed at the home of the bride's parents in Corona. Good luck, Travis and Lana!

This is the first Tool Room news in quite a time, so we hope this first effort will start the ball rolling toward a regular Tool Room column.



"There are two things in life which no one can take away from you, which no reverse of fortune can destroy: That which a man puts into his brain—knowledge, and into his hand—skill." Whoever wrote that many years ago certainly must have had visions about the airplane industry, and of course our metal bench department. To this might be added something about the wonderful cooperation the old-timers have shown us newcomers. I know I speak with the fullest consent of the rest of the new men when I say, "Thanks for showing us the ropes."—A. A. Reich.

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ANODIC ANECDOTES

By Bert Naseef

AFTER the gang read last month's column, they one and all decided to write their own news, so the resulting turn-in of items leaves nothing to be desired, and all I've got to do from now on is to collect them.

We are all glad to have Harry Parker back from Oklahoma and also hope that Fritz will not mind the night shift too much.—Mac McGuffin.

What is this we hear about body building and weight lifting. For instructions, see Gerber. If you prefer bowling, see Warner.—Bob Larceval.

Gaston "Black Beauty" Gonzales, the anodic adonis, has been saving his money for months to buy himself a car; now it is rumored that he has changed his mind in favor of getting married to a dark-eyed fascinator named Martha Romero.—Paul Duffy.

Why, after receiving free transportation, did our ex-football champ cancel his week-end trip to Catalina?—L. F. Airhart.

"Golden Boy" Warner has been showing us a picture of his sister (?) and asking us how we would like to date her. Of course we would if we could but believe the little beauty was his sister. Our war correspondent, Paul Duffy, is a splendid European news analyst. Fresh out of college, he has been trying to educate our friend "Dokey" Gerber.—G. J. Gonzales.

Ted Lohman and the missus jumped out of bed the other night and deliriously chased the entire San Diego Fire Department. "Sounds like a three alarm," cried Ted, excitedly stepping on the gas. What they found on arriving, was three squadrons helping an old lady get her kitty out of a tree.—David Mann.

If you want to see a weight-lifting contest, come to the San Diego County meet at the City Y.M.C.A. August 3rd at 7:30 p.m. and watch anodizer Wally Miles lift the three continental weights. He is expected to make a good showing even though he weighs but 125 pounds.—Don Gerber.

Mac McGuffin, anodic clean-up chief, had four flat tires in one day. Mac scuttled his '28 Buick for a '28 Dodge with better rubber; It won't be long before that 1945 model he is waiting for will be out.—Harry Parker.

The most interesting job I've had is anodizing. Among the many things to watch here, I've learned, is that it is best to watch the filling of the nitric acid tank through goggles. Otherwise, one may get

too much of an "eye-full."—M. E. Williams.

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TANK HIGHLIGHTS

By Hertbel Chappell

HERE'S one for the book! Can you picture Mac McCann, that high-falootin' ladies' man, the ex-manager of the basketball team, hitchhiking to Mission Beach? He was spotted standing on a corner with swimming trunks and towel in one hand, and thumbing a ride with the other. Believe it or not! By the way, fellows, Mac's girl friend calls him "Lenny" (of Mice and Men). We wonder why.

Ted Schwarz, who has been looking for the girl of his dreams for some time, says his wish has been fulfilled. Her last name is Passion—see if you can beat that for a name.

"Little Lulu" is going to town! The owner of this speedboat is Jerry Wilson of night shift, and a very proud owner, as "Little Lulu" is one of the fastest boats on the bay. Jerry says he is going to hop it up, and top all records. Take the turns easy, boy.

As August approaches, Sid Riches, the blushing bridegroom-to-be, looks worried. Maybe it's the sleepless nights, and wondering if two can live as cheaply as one.

Do you know:

That John Wiley has a 1940 Plymouth coupe? Some class there, fellow, and what's this we hear about a new home? We'll be there when you have open house, Wiley. That Bill Strunk of night shift is thinking of splurging and buying a new home? More power to you, Bill. That Joe Thomas was seen tripping the light fantastic at Mission Beach with a pretty brunette? Nice going, Joe. That Jack Theuws and wife went to Yellowstone National Park on their vacation? That Felix Mattingly, the fellow who is known as the barefoot boy of Kentucky, is taking dancing lessons? That Bob Summers knows how to make his landlady come down on his rent? In case you're interested in details, consult Bob "Free Rent" Summers. That Johnnie "Jockey" Humes is continually picking the wrong horse lately? Come on, Johnnie, you'd better use a little hoss sense and lay off. That Bill Consaul and wife spend every week-end at Mission Beach working? Bill is dishing out the drinks and the Missus works in a booth.

And that's "30" for this month, gang.



To think is labor twice distilled.



— with Bud Landis

Here's a surprising statistic: A thousand years were wasted in 1939!

• • •

That's quite a bit of elapsed time. If laid end to end, those ten centuries would protrude back into the past twice as far as the date when Columbus docked in America.



The squandered eon is the result of *avoidable* starting, stalling, and stopping endured by 30 million motorists in the U. S.

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Another 10% can be laid at the feet of the Screwjays—the pedestrian who wanders across busy streets with heavy head and feet awheel.

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RECREATION NOTES

By Ralph Smith

EVERY Tuesday is *Consolidated* night at the Ice Skatnig Rink from 6:00 until 7:30 p.m. All skating ends at 11:00 p.m. All you ice hockey players had better be thinking about filing those skates and limbering your hockey sticks because in early fall we expect to form a plant league with the possibility of having the best team represent the plant for outside competition. This is a good time to start taking advantage of the special offer on Tuesday nights.

There is a riding club which meets for the night crew at 10:00 a.m. and the day crew at 7:30 p.m. every Wednesday at the Balboa Park Riding Academy. Every one interested in learning to ride is welcome to join in the fun. We understand these clubs are going in for trick and pyramid riding later.

The City Recreation Department, assisted by W. P. A. leaders, offers an assorted group of activities for employees' wives and mothers in the way of craft and volley tennis groups. These craft classes are entertaining as well as instructive and we are sure all the ladies would enjoy visiting if not joining in the activities which are free. Some of them are:

MONDAY:

Craft Class, Davis Gym., Ocean Beach, 9:00 a.m.-4:30 p.m.
Craft Class, National City Park, 2:00-5:00 p.m.
Craft Class, La Jolla, 9:30-11:00 a.m.
Craft Class, Washington School, 9:30-11:30 a.m., 1:30-3:30 p.m.
Volley Tennis, Davis Gym., Ocean Beach, 8:00-10:00 p.m. (adult mixed group).

TUESDAY:

Craft Class, Grant School, 9:00 a.m.-4:30 p.m.
Craft Class, Florence School, 12:00-5:00 p.m.
Craft Class, National City Park, 2:00-5:00 p.m.
Craft Class, La Jolla, 1:30-3:00 p.m.
Craft Class, Golden Hill, 9:30-11:30 a.m.
Volley Tennis, McKinley School, 9:00-11:30 a.m.
Volley Tennis, Washington School, 10-12 a.m.
Volley Tennis, North Park (Municipal Pool), 9:30-12:00 a.m.

WEDNESDAY:

Craft Class, Mission Beach School, 1:00-5:00 p.m.
Craft Class, National City Park, 2:00-5:00 p.m.
Rug Weaving, Davis Gym., Ocean Beach, 1:00-4:00 p.m.
Craft Class, Washington School, 9:30-11:30 a.m., 1:30-3:30 p.m.
Volley Tennis, Mt. View Playground, 9:00-11:00 a.m.
Volley Tennis, North Park (Municipal Pool), 9:30-12:00 a.m.

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THURSDAY:

Craft Class, John Adams School, 9:00 a.m.-4:30 p.m.
 Craft Class, Hamilton School, 12:00-5:00 p.m.
 Craft Class, Florence School, 6:30-9:00 p.m.
 Craft Class, McKinley School, 1:00-10:00 p.m.
 Craft Class, De la Cruz Park, 9:00 a.m.-4:00 p.m.
 Craft Class, National City Park, 2:00-5:00 p.m.
 Craft Class, La Jolla, 9:30-11:00 a.m.
 Volley Tennis, Hamilton School, 9:30-11:30 a.m.
 Volley Tennis, Golden Hill, 10:00 a.m.-2:30 p.m.

FRIDAY:

Craft Class, Pacific Beach School, 2:00-5:00 p.m.
 Craft Class, De la Cruz Park, 9:00 a.m.-4:30 p.m.
 Craft Class, National City Park, 2:00-5:00 p.m.
 Craft Class, La Jolla, 1:30-3:00 p.m.
 Craft Class, Washington School, 9:30-11:30 a.m.
 1:30-3:30 p.m.
 Volley Tennis, McKinley School, 9 a.m.-1 p.m.
 Volley Tennis, Mt. View Playground, 9:00-12:00 a.m.
 Volley Tennis, Davis Gym., Ocean Beach, 8:00-10:00 p.m. (adult mixed group).
 Volley Tennis, University Hgts., 9:15-10:30 a.m.
 Volley Tennis, Washington School, 10:00-12:00 a.m.

Late in August there is going to be a three-day craft and hobby show in the Municipal Gymnasium. The Recreation Department has offered *Consolidated* a space for our exhibit. All those having a hobby or craft that they wish to display should leave a note with name, clock number and type of exhibit at the north gate for Ralph Smith. Let's all help to make the *Consolidated* exhibit the best in the show!

Bowling enthusiasts should start limbering the fingers and getting a line on your various teams because it won't be long now!

North American Aviation issued a challenge to the *Consolidated* tennis team, which was readily accepted and played at North Park, with the *Consolidated* team entertaining afterwards. The players were:

For North American, 1st singles, Robert Miller; 2d singles, George Shull; 3rd singles, Francis Schmidt; 4th singles, Oakly Drulines; 1st doubles, Earl Foote, and Harold Jackson; and 2nd doubles, Dean Phillips and Ed Brewster. For *Consolidated*, 1st singles, Homer Shayles; 2nd singles, Dan McClaren; 3rd singles, Joe McKeller; 4th singles, Carl Shellback; 1st doubles, Karl Sjoblom and Ed Requa; 2nd doubles, Frank Boyle and Cecil McGowan; and Alternates, Hamilton May, John Lockwood and Harold Hudson.

There are photography clubs being held every Wednesday night at Balboa school.

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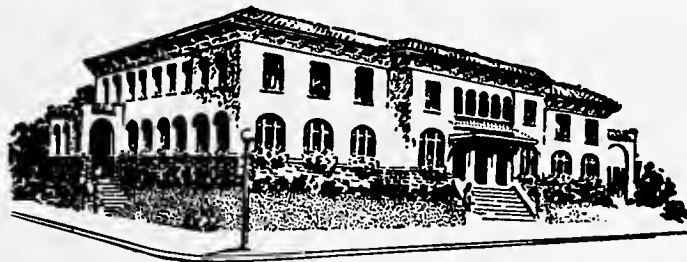
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MORTUARY

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HERE at *Consolidated* department after department performs operations of complicated and elaborate nature. To keep them operating requires the assistance of a large group of experienced technicians. This little known group of men are all specialists in their own lines. They are the boys who keep things moving . . . regardless of their motivating power. They are the boys who furnish the air and electricity to points where they are needed. They build benches and tables and stock racks. Sometimes they build a whole stockroom. They move equipment and then keep it in repair. They fight corrosion and deterioration with barrels of paint. They keep the roof from leaking. They string lights, keep the phone system in order, act as firemen and maintain the signal system. They rewind and repair all the electrical devices used in the entire



The maintenance leaders meet in a "round-table" discussion with the plant engineers: Left to right: J. B. Giovanoli, Assistant Plant Engineer; Wm. A. Maloney, Plant Engineer; Robert R. Biddle, Foreman, Maintenance Carpenter Shop; Robert F. Jones (upper) Assistant to Mr. Maloney; Henry A. Fink, Foreman, Electrical Maintenance; and Robert Combe, Foreman, Mechanical Maintenance.

AIRCRAFT PLANT MAINTENANCE

By LARRY BOEING

plant. They operate the power house and the huge air compressors and they maintain the refrigeration system. In other words they are a busy group of men who have little chance to talk about their work and problems, simply because they have so many of them.

To do all this requires planning, supervision and a highly trained personnel. It must be near perfect in all phases of its duties because its responsibilities are beyond the ready conceptions of most people not acquainted with manufacturing problems on a scale as large as *Consolidated's*.

The man in charge of the entire Maintenance and Construction Division of *Consolidated* is "Bill" Maloney who is one of the few men in the country with background, training and experience to oversee this Herculean task always ahead of him. Always surrounded by blue prints of proposed additions, equipment catalogues, building codes and a million requests for much needed rearrangements, installations, adjustments and repairs, he must depend a great deal on his three highly specialized assistants: Messrs. Fink, Biddle and Combe. They are in direct charge of Electrical, Carpentry and Mechanical Maintenance and every *Consolidator* depends on the results of their efforts to perform his own part in producing units for our added National defense.

Assisting Bill Maloney in the capacity of assistant plant engineer is Joe Giovanoli,

who is in direct charge of all maintenance and installation groups. He supervises general plant layout and oversees plant operations and mechanical equipment installations.

"Hank" Fink oversees a range of operations the thought of which would scare most people. It is as varied as only the most vivid imagination could dream of. For instance he repairs and maintains all electric motors in the plant. They range from 1/20 H.P. to 295 H.P. They might power a hand drill that drills a hole of a few thousandths to a lathe which bores a diameter measured in several feet!

L. C. McEntee is his direct assistant in charge of all Electrical Maintenance. C. L. Hostetler is leadman over all groups doing new construction, moves and emergencies on the day shift.

On the second shift A. Cord handles maintenance work while C. Saum carries on with new construction and moves from where Hostetler's group leaves off.

C. Cummings handles maintenance and emergencies on the 3rd shift.

The large amount of portable equipment in use requires careful maintenance, repairs and adjustment and Chuck Reddien is in charge of this work.

The extensive refrigeration system of the plant requires constant attention and the number of units located about the plant require the services of a large group or refrigeration experts. This group is headed by E. Thompson.

The fire alarm system at *Consolidated* is

more elaborate and has more call boxes than could be found in most small cities. Various members of the Electrical Maintenance group act as fire squad leaders and regardless of where an alarm might be turned in a Fire Captain is on the scene with his crew in a few seconds.

The electric time clocks about the plant get a lot of pushing around several times a day when one considers that close to 10,000 people move in and out of the plant in a day. They also require constant maintenance inspection and periodical overhaul.

Accurate recording and control of temperature of Heat Treating furnaces and solutions is absolutely necessary in aircraft production. The Recording and Controlling Pyrometers are also serviced by the Electrical Maintenance group.

The second group of maintenance men is headed by Bob Biddle. This group is called upon to make anything from wood that might be required. In this department fine cabinet work for executive offices is turned out as well as concrete forms. A complete "Mockup" of a huge bomber is just a breeze for these boys.

Ted Stark assists Bob Biddle and is kept busy at all times.

Melvin Knutson has charge of all outside carpenter construction and this is no small job. This includes building of huge frameworks for static testing large surfaces.

John Hunter is in charge of all night



HENRY A. FINK was born in Buffalo, New York, in January of 1893. Trained for electrical work, he has spent 25 years of his life in this line, specializing in the installation and maintenance of factory electrical equipment. During this time he has worked with the Bethlehem Steel Company, Wick-Wire Steel Company, Buffalo Electrical Contracting Company, the Bison and the Burroughs Electric Companies and has acquired a valuable store of information in the electrical field. Mr. Fink started with the *Consolidated Aircraft Corporation* March, 1933, as an electrician on the night shift and soon after became foreman in charge of the electrical division of our Maintenance Department, the position he now holds.

wood working and painting operations.

Ed Wood has charge of the mill while Art Hubbard has charge of bench work and acts as cabinet work leadman. C. Morton handles the paint work and this job is figured not in barrels of paint applied but in tons. It is a fact that it takes over three tons of aluminum paint for a single application to *Consolidated's* building exteriors.

At present this group is painting the huge sign on the roof of the new west building. The sign is 1000 feet long and the letters are 25 feet high! When completed this sign will greet all incoming planes.

This department also conditions about 500 band and circular saws a week. To give you just a little finer insight on the amount of work turned out may we remark that the mill eats up about 10,000 board feet of lumber a week!

Mechanical maintenance is handled by Bob Combe who is assisted by "Mac" Clutinger acting as assistant foreman.

The Mechanical Maintenance Department consists of three main divisions; the Millwrights and Riggers, Pipefitters, and Laborers.

In the Millwright division, new construction is supervised by leadman Harry Pierce and this group produces new factory equipment and machinery designed by plant engineering. New Monorail is erected and changes are made in the present Monorail system by millwrights under assist-

ant foreman "Mac" Clutinger. This latter group also erects rigging for lifting and moving wings and fuselages throughout the plant. Leadman D. G. Nesbit's crew of millwrights repairs all machinery in the tool room, machine shop and throughout the plant. Licensed steam engineer L. M. Ulery is in charge of boiler and air compressor maintenance in the plant. Also included in the millwright division are the men in the Maintenance blacksmith shop who repair anodic and drop hammer equipment, etc. Sheetmetal work, such as fabrication and installation of stacks and vents for lead pots and other equipment, is done by this division of Mechanical Maintenance.



ROBERT R. BIDDLE was born in Cape May, N. J., in January of 1898. Graduated Buffalo public schools, West Seneca High, New York Institute of Photography. Served apprenticeship became Ship Joiner, Buffalo Dry Dock, Assistant camera man, White Studios and Universal Pictures. Became foreman of semi-finish stockroom Curtis Airplane Co. during the World War. Started with *Consolidated* in February of 1934 and soon became foreman of Wood mill which also includes supervision of maintenance carpentering and painting, the position he now holds. Likes swimming, fishing, photography for diversion. Lively, energetic, Robert R. "Bob" Biddle's rise came quickly from his start in '34.

Pipefitters under leadman Frank Webster, install all necessary steam, water, gas and air lines throughout the factory. Air and water lines to service the ships in the yard are also laid out by this group.

Laborers form the third division, under leadman E. D. "Swede" Burnett, "Tony" Bujnorowski and "Bulldog" Johnson. These men move all heavy material within the plant, unload machinery and new equipment, excavate and do cement work for machinery foundations and keep the factory grounds and yard clean and free of refuse.

"Al" Fink and his crew in the maintenance crib repair paint spray equipment and portable pneumatic tools for the plant, and the man with the worried look in his eye consulting the tide table is

Walter Winkler in charge of "You know what" maintenance.

Leadman Otto Darling has charge of night maintenance throughout the plant.

Oiling of all machinery, air hoists and other factory equipment is another job handled by Mechanical Maintenance.

These three busy groups contribute greatly to the success of our manufacturing operations and probably never get all the credit they deserve but without them the rest of us couldn't get very far with our own little jobs.

One of the maintenance men with a flair for poetry wrote the following which just about describes the spirit of the boys:

And now our story is ended
We trust we have befriended,
Our chief aim is intended
To keep your troubles mended.



ROBERT COMBE was born of Scottish descent at New Castle on Tyne in 1898. He attended elementary school in Queenstown, Canada, and later went through high school by attending night classes in Niagara Falls, N. Y.

For three years he was a final assembly mechanic in the automobile industry, with the National Carbon Company one year, and four years as assistant foreman of the Dental Department of the Carborundum Company. During the War Mr. Combe spent over two years with the Canadian Engineers. He has also acted as a machine operator for the U. S. Battery Company and assistant maintenance foreman two years for the Maximize Dry Cell Battery Company.

In October, 1929, he started with the *Consolidated Aircraft Company* as a maintenance mechanic and by the dint of hard work has secured for himself the position of foreman in charge of mechanical work of our Maintenance Department. Bob Combe leads his group of men in an unobtrusive manner in the no small task of keeping the mechanical equipment of the plant in proper condition. For relaxation he prefers softball.

"Did you ever do any public speaking?" asked the man in the largest rocker.

"Well," replied the chap on the three-legged stool, "I proposed to a girl in the country over a party line."

"Is there something in your eye?" enquired the sympathetic helper and the victim grunted, "Heck, no, I'm just trying to look through my thumb."

PRODUCTION MINUTES

"Thar's fuedin' goin' on between the Boeings and Stewarts agin." It all came about when Boeing moved his "motorized inspection horde" across the international boundary and took over 6 foot of Ed

Stewart's storeroom space. After Ed's "capitulation" he claimed that the extra weight Larry has put on made it "Impossible to hold the line," and contends that the space is very necessary for his "front expansion."

Besides hot weather, added personnel, plant expansion, E.O.'s, B.O.'s and "muffs" our under-cover agent reported activities in July as follows: Since Chris Englehart has been working Saturdays and the Mrs. taking care of the lawn, it has been cut in straight lines and the flowers left standing—the "good humor man" is Bob Abels with the paychecks, but "Yohoudie" is still a mystery—Kathleen Schneider, another "scandal slinger" whose "dirt" is found on other pages of this magazine, is a twin and was monikered "Tiny" in the past—Ben Keigle claims Jim Eisman makes so many "breaches of etiquette" that he has a special apology form printed to check and give his host. Wonder if that boat owner and those three longshoremen have located Coykendall since the chartered fishing trip was cancelled due to 48-hour week?—What does Glenn Hotchkiss, Ed Jones, and Tom Galvin mean with that "double talk" about "missing the boat" and "getting off at the mezzanine"?—Owen Stockton, fashion expert and Esquire critic, thinks a "full dress" is a garment made to cover a "bustle." Joe Maloney reports increase in print returns since installing "library card" system.—Afraid of being socked that 2c overdue fine.—Jim Mussen is much concerned over brother Bob "going to the dogs" after learning about him smoking those "cubebs." He had never tried anything stronger than "corn silks" before.

"Pappy Yokum" Holcomb the Daniel Boone of Suncrest took Lloyd Bender fishing, and according to the latter, he really knows the spots. As to his ability in rowing a boat, we learn that he keeps in trim by rowing out past the three mile limit every week to get his cigarettes off the boats and save the tax. From that saving we owe, perhaps, those "glamour pants" he has been sporting recently.

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tatorship and Bondage" was Hazel Brink and Fred Robertson, and Tommy Joubert and Marion Rauschart after a "treaty and redistribution of powers and wealth" in Yuma. Old "Dan" found the target through an open ventilator during the "unusual weather." Fred is a Finish employee which should give Hazel a fast "make up" job to beat the whistle. Tommy and Marion are both singers, and can go to high "C" if the argument demands it. Owen Stockton wants to prove that "springtime" is not influencing him, and will wait until fall and cooler weather before giving up his own cooking for Margie's. Frank McHugh, Owen's former "cell mate" claims that "Stock's" cooking is reason enough to get married. Says "Frenchie" I couldn't stand it, and I only have half a stomach."

Bill Liddle, Bob Mussen, and Bill Holman have solved a part of the national defense program with that "Cromemolly tubing cannon" they manufactured for the 4th.—If the wives ever get together and check on all those lodge, club and volunteer fire department "business meetings" on the night of the "Caliente Stag" there may be a shortage of tool designers and engineers.—Perry Ogden after loaning that pipe with the "preheater exhaust collector and bowl cooling" features to "Bud" Mouschel for "design data" plans on returning it for credit. Claims it "exhausts" when it should be "intaking".—Milt Hangen did some swell "forest fire fighting" during his vacation which accounts for the lovely tan. Or is it red?—Paul Gaughen has to show his birth certificate to get a drink of beer. A few more months at his job and he'll look old enough.—Paul Hoch suggests hiring an interpreter for each PBY to use instead of nameplates, and has the figures to prove it a saving.

That was a false report about Eastin, Tool Room, subbing for Galento during the "battle of bums." What really happened was a "soda pop" exploded in his face. So there is a good point in favor of the "stronger stuff" as you can prove to the wife the dangers involved in sipping the explosive liquid.

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HULL-abaloo

By Al Leonard

BILL PETIT, the "Little Caesar" of the Hull Department clerks (jitter-bug style) signs Glenn Hotchkiss' name so many times a day that it became a habit with him. The other day Bill went to the bank to cash his check and unconsciously signed Glenn's name when he endorsed it. The bank teller evidently did not believe that "the pen was mightier than the sword" and wanted to know, how come? Bill had a few bad moments explaining his way out of his predicament.

It seems that Harry McEwan's wife went down to the Y.W.C.A. recently and told Harry to call for her at a certain time. Harry showed up at the right time all right, but at the Y.M.C.A. After waiting for one hour, Mrs. McEwan saw the light and dashed over to the Y.M.C.A. There was Harry waiting like a patient old St. Bernard (without the brandy tied around his neck). Harry says 'taint right that one letter in the alphabet should make so much difference in a man's life.

"Dutch" Kling had an old trailer in his yard that he couldn't use because he did not have a license for it. Russ Kern, head Hull Inspector, was building a love shack in the mountains and wanted to borrow "Dutch's" trailer . . . he is known to be a very thrifty (tight) gentleman, so he told Russ he could use the trailer if Russ bought the license for it. Russ bought the license and immediately all "Dutch's" friends started borrowing the trailer. It got so bad that if the friends didn't have a trailer hitch on their car they would borrow the car also. This was too much for Dutch, so he sold the trailer and now Russ is moaning for the three dollars he paid for the license.

All *Consolidators* wish to extend their condolences to Ray Parker in the recent loss of his father.



"If you refuse me," he swore, "I shall die."

She refused him. Sixty years later he died.

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'HEARD ABOUT THE HULL'

By Bill Pettit

NEVER let it be said that Hull men lead a slow and quiet life. Things move too swiftly for dull moments.

Speaking of dull moments, Hank Yogerst, quiet looking chap in Hull No. 2, spends most of his time swinging to and fro from the girders while quietly tending to his business of moving ships from one end of the factory to the other.

Perhaps the most exciting affair of the month was Jack Bennett's little tussle with a couple of holdup men. Jack, who does a bit of clerking in the Hull Department in his spare time, was coming home late one night when two men stopped him and demanded that he give them his jacket. "I'm sorry, but I can't do that," said Jack. "Oh, no," snarled one tough, "and why not?" "Well, you see," replied Jack, "it belongs to my brother." When Jack woke up a half hour later, his face was all bashed in and his brother's jacket was gone.

When questioned by the police, Jack couldn't describe the men very well, but ventured to say they were amateurs, for they had left his wallet with \$8.00 in his pocket!

Speaking of excitement, those who would like thrills galore, join one of the Hull groups fishing parties, but come prepared—for anything can happen.

Trying his best to keep from being excited, we find Dutch Klein explaining to one of his men that "Manual Labor" is not a Mexican war general but was a riveter on the third shift.

A fool refuses the counsel of a wise man, but the wise man often discovers truth in the speech of a fool.



Time scratches every itch.



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Come and see for yourself.

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1. Presenting Baby Larry Vern Sharp at 14 days! Mr. and Mrs. Vern Sharp became the happy parents of Baby Larry on June 25.

Little Larry tipped the scales at 7 pounds 8 ounces. Mrs. Sharp is doing fine and—oh, yes, Vern took it like a man. The picture was taken by Stan Marcyan.

2. Sheppard vs. Payne. "Dad" Sheppard, resplendent in his Sunday best but minus his large Stetson, slowly walked up the middle aisle of the Ashbury Methodist Church on July 7th and deposited the last of his five charming daughters into the waiting arms of John R. Payne, who had asked and received permission to take over Lavina Jean as his very own.

Dr. Martin tied the knot, a single hitch, while the organ played "I Love You." About three hundred friends and relatives, mostly *Consolidators*, were on hand to witness the beautiful ceremony and attend the reception afterwards.

The bride was attended by her sister, Mrs. Zora Peck, Miss Betty Yates and Miss Shirley Wallenbach, while Don Diesel and Ralph Golden seconded the groom.

The newlyweds plan on making their home in San Diego as soon as they return from a short trip to northern California.

3. Grunion Running! So off went the second shift maintenance gang. One a. m. found our party at Ocean Beach, enough barn for a fire, and all the requisites for a grunion catch. Dodie Rodig, Mrs. Roy Schultz, Mrs. Elmer Homan, Mrs. Stan Marcyan, "Red" Bauer and Elmer Homan ("posing" with bottles), Roy Schultz, George Mueller, Ray Homan and Jack Kernick added to the party to make it just large enough to take care of the "wine, wieners and song." Flash photo by Stan Marcyan.

4. Alphonso Gomez's PBY takes to the water. This gas-powered model of *Consolidated's* famous flying boat has a six-foot span.

5. "Just as good as new, and twice as handsome." That's how Chief Test Pilot "Bill" Wheatley phrased a description of our sturdy FLEETSTER NC700V, since it has been given renewed outward appearance by the striping and treatment of the vertical fin. Pressed for some information on this ship, that

probably has been seen by everyone of the plant personnel (since it generally resides within the yard when not called upon to jaunt some of the officials about the country, or swing alongside one of our models in the air so that Otto Menge can shoot some aerial pictures), Bill gave forth the following information relative to this sturdy ship:

This plane has Pratt & Whitney Hornet 1690 C engine, Hamilton-Standard adjustable metal propeller, Goodyear 35x16.6 air wheels and brakes, tail wheel, Electric Inertia starter, generator, battery, landing and navigation lights, instrument and cabin lights. Its gross weight is 5600 pounds and it is an eight-place plane without radio or seven-place with the LEARADIO now installed. The radio equipment consists of Transmitter, multi-band receiver, and AUTOMATIC radio direction finding compass. It has full "blind" flying instrument equipment, including: Directional Gyro, Sensitive Altimeter, Bank and Turn indicator, rate of climb indicator, suction gauge, air-speed indicator, sweep-second hand clock, compass, airspeed, full set of engine instruments. The plane has had less than 1,000 hours of flying, and the engine about 200 hours since purchase from P. & W. A. Co. We have just gone all over the plane since I got back from flight in June to Washington and Dayton, and it has been put in "new" condition.

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6. Another wedding! (See "Facts about the Femmes.") The former Miss Hazel Brink of Production and Fred Robertson of the Paint Shop were married in Yuma on July 4.

7. *Consolidated's* own Swami, "Hindu du" Jack Kernick (Night Maintenance) is gazing into his crystal in preparation to prognosticating the future or revealing the past about 'most anything.

8. "My, what big feet you have," Frenchy McHugh (Planning Department)—also, what long legs!

9. This is to prove that fishing is good at Laguna Hanson, Lower California. Roger Heinrich (Purchasing) and G. B. Roth (Plant Police) hope that this fine string of small-mouthed black bass doesn't start too big a rush to this mile high lake. This picture was taken early in July.

PLASTER SPLASHES

By Burnes

Everything is back to normal in the Plaster Shop now. Red Boyle is back with us after a short vacation in St. Louis. He still maintains St. Louis beer is the best.

We welcome George Obdo back after his long siege in the hospital.

Dave Klinger seems rather busy these days. He spends all his free hours house hunting. What's behind all this, Dave?

Yep folks, Ralph Mead says it's the real thing this time. He spends all his evenings with his new "gal" friend, so I guess we will have to believe him.

"Chris" W. E. Christoffersen wants to be sure of a job playing Santa Claus this coming Christmas, so he is starting to grow the beard now.

Emory Seward says being the proud papa has its points, but he is getting plenty tired of getting his own breakfast every morning.

Charlie Shoupe seems to be quite the fisherman, but he is really quite modest about it. He never tells about the big ones. Maybe he's just too honest!

SOUTHERN CALIFORNIA FLYERS NEWS

By Joe Havlik

JULY 4 brings Wedding Bells into the club this month. Seems that little Dan Cupid has taken a pot shot at our indispensable Fredrick "Ace" Robertson. That little dart of Dan's must have a powerful sting, and left Freddie walking around in a daze for two weeks before the effects had worn off. The lucky bride is none other than *Consolidated's* office employe Hazel Brink, now quoted as Mrs. "Ace" Robertson.

This month also finds the Southern California Flyers with a membership roll

topping 40 members, and very shortly Piek's Airport will be sporting the club's 2S ship. Introducing our new air-minded members who have joined the legion of "Ozone Addicts" we have: Ben Prayble, John Artukovich, Everett Triplett, Mil-

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Classes will begin August the 5th. Instruction will be given by experienced Engineers, now employed in the industry.

Day and Night Classes.

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ton Oلمان, Roy Martinson, Leo Ferris, Albert Gaudrault, Dean Yost, Carl Johnson, L. M. Gibson.

The rapid growth of our club shows signs of keen interest taken by many of those who would not as much as look at a plane a year ago; this increasing interest will soon find the Southern California Flyers adding to their list another and maybe larger ship.

MORE SPORTS . . .

By W. C. Gilchrist

Now that the first round of softball is over, two teams have come through without losing a game. We have the equipment for another round of play, so get busy and see how far your department will go! We will try to form four leagues of six teams. The play off will bring basket ball into season without loss of sporting events in your department.

In order to organize basket ball teams or other sporting events, it will be necessary to have each man recorded before play begins. Let us know what sport you are interested in. This helps us to arrange entertainment for you in your spare time.

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"X" NEWS

By Droune

Jack May seems to be doing things up right by throwing away his razor and buying a horse at the same time. We wonder just what the connection is.

The other night Bernie Swartz was fishing at Mission Bay with his father and brother. . . . A large mullet jumped out of the water hitting Bernie's spear, and falling into the boat. Bernie swears by his story!

Twenty-one days of field training for the California National Guard at Seattle, Washington, will draw heavily upon the Experimental Department. A considerable number from this department are detailed to go, starting August 4th.

Wedding bells rang again in the Experimental Department, this time for Bill Gibson and Dorothy Jones. They were married June 29th at Yuma, Arizona. We all wish them the best of luck and may the trail of married life be strewn with happiness!

Final Assembly's gain is Experimental's loss as Art Collins was recently transferred. All the gang wish Art the best of luck and speedy advancement in his new job.



Receipt for having friends—be one!

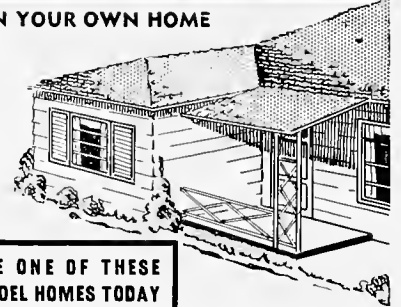
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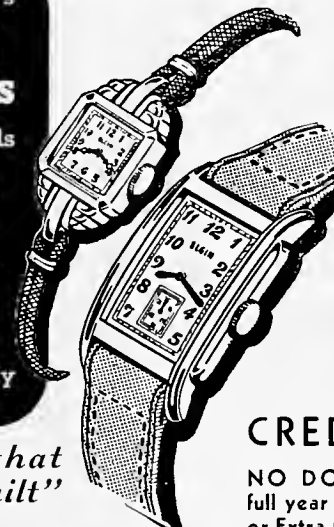
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Said the boss, "I'm a man of few words. When I point my finger at you I want you to come." Says the new man. "I too, am a man of few words. If I shake my head I ain't comin'."—A. A. Reich.

Common sense is very uncommon.



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TOOL DESIGN TIDBITS

By Maguire

AMUSING incidents this month: Ray Peters' "Clothesline" or baby shower. This event was the day after he announced the birth of Miss Page Brooke Peters (71½ lbs.). The boys in the department strung a line across Ray's desk and really contributed generously: baby blankets, dresses, shoes, etc. Was Ray's face red when the watchman on the front door requested a look at the package he was taking from the plant.

Van Meter went sailing and after spending two hours on the bottom of his upturned boat sending out SOS he has taken up amateur photography.

E. L. Minch can't get to work without a flat tire. Paul Welty is buying two more alarm clocks. Why?

Tisdale, Kick and Wills are so far away that T. P. Shaw is the only one in the department who can muster enough lung power to attract their attention.

Happy to report that Miss Phillis Koenig, daughter of Phil Koenig, has returned home from the hospital and is rapidly recovering.

Roy Smeltzer's new pipe is large enough to hold one full can of Bill Ekdahl's tobacco.

New in the department this month: Henry Knippenberg and W. H. Barling. Our greetings.

Some of the boys were overdressing a little, so Wes Kline has taken a hand to show them just how it should be done.

Charles (Romeo) Smith says it's too warm—that's all.

TUBE BENDING

By Hart

The Tube Bending Department was well represented in the tennis tournament. Although James Nuse didn't quite reach the finals, he gave a good account of himself.

Seven fellows in the department are planning real vacations this year. They

are: H. Deische, Dane Pearce, E. Van Denburgh, E. Rasys, G. C. Hammett, D. Wharton and Curtis Franklin. Hope they all have a good time fishing, or loafing, or what?

L. Grabbit never wants to see another horse after two hours of steady riding.



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**BUDGET
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FINISH DEPARTMENT NEWS

By Bud Dale

WITH the Fourth of July safely passed, and no casualties, the Paint Shop is in the groove, with paint flying thick and fast.

Some new faces are seen around the shop; also many old hands have returned.

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BUDGET TERMS GIVEN

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It's still a mystery concerning Wally Brown's glasses. At least some of the boys are worried about it. Maybe Pop Shepperd, the sheriff of Rattlesnake Gulch, could solve it.

Orve Hubbard returned from his vacation, spent among the man-made birds of Lindbergh Field. Like the postman hiking on his day off. He was well pleased, though, and said he really enjoyed it.

Roy Coombs of the Covering Department put in his bid for a cross country record Sunday, July 7. He "flew" his Chevrolet four-wheel cabin job to Bakersfield and back, leaving at 1 p. m. and returning that night. Emergency case, though, not a pleasure trip. Poor Roy!

"Parson" Ollie Stewart, that "gentleman from the South yards," left for ol' Frisco July 13 on a vacation. Ollie took in the Fair, relatives and Yosemite National Park. What a shock for relatives. Don't forget some photos, Ollie.

"Arkie" Morey had better be on his toes now. Competition in form of brother Carl on the night shift is the reason. A promising young man with book "Iarnin'."

Mrs. John Gzda—"How can I get a wart off my hand?"

Doctor—"I would advise you to shoot him."

Ernie Olmstead has decided to enter a new field in employment. He is leaving Consolidated Aircraft for Consolidated Gas and Electric.

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SHEET METAL NEWS

By H. B. Millman

IT is a good thing Tommie Wathen can swim—he had the misfortune to fall off the Coronado Ferry about 3 a.m. one Sunday morning lately. He claimed someone pushed him.

Mr. and Mrs. Mike Alianelli have moved into their new home at 4735 Boundary. Every one is welcome.

Walt Borg misplaced his car the other night and had to take a taxi home. The car was located the next day still waiting for him.

Aloysius Sugg, one of our inspectors, had to give up chewing Beech Nut—his girl refused to kiss him good night.

Gordon L. Grant was seriously injured in a car accident recently—here is hoping for a speedy recovery.



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■ Equip your car now for safe SUMMER DRIVING

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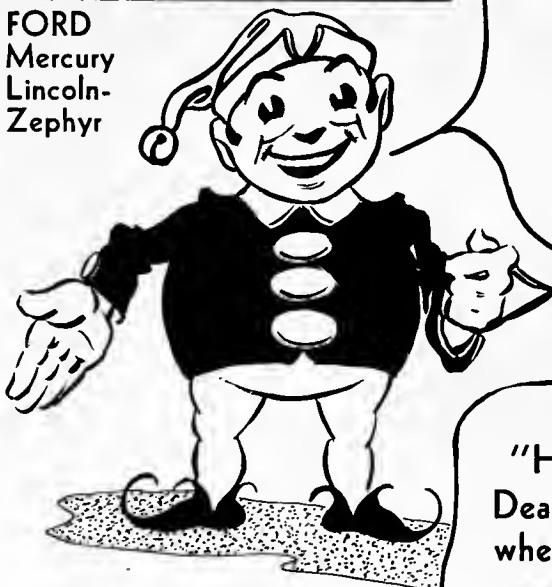
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● *WHAT'S YOURS, MISTER?*

Have a shot of Joe's? It looks the same. Even tastes the same. And people do buy it--they like to save a couple of cents, don't we all. But they come back to Johnny. Why? Well, they seem to lose interest in that 2-cent saving, when they learn that Ethel-- Ethel is Joe's cat-- that Ethel fell in Joe's lemonade.

DON'T look now, but aren't there traces of cat in that low-priced car insurance they've been trying to sell you? Must be, or it wouldn't be that low priced. *Couldn't* be. If you want insurance that *insures*,

go up a couple of cents. (Jokers belong in card games -- right?)



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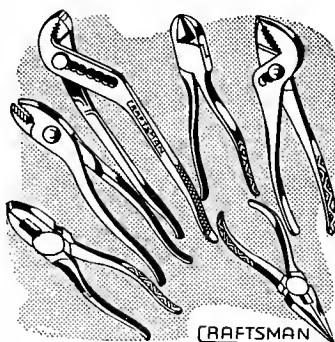
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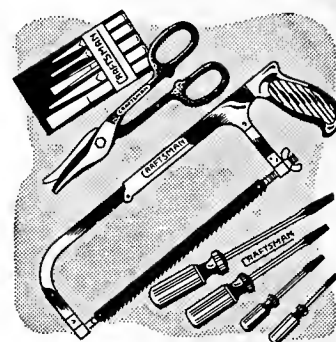
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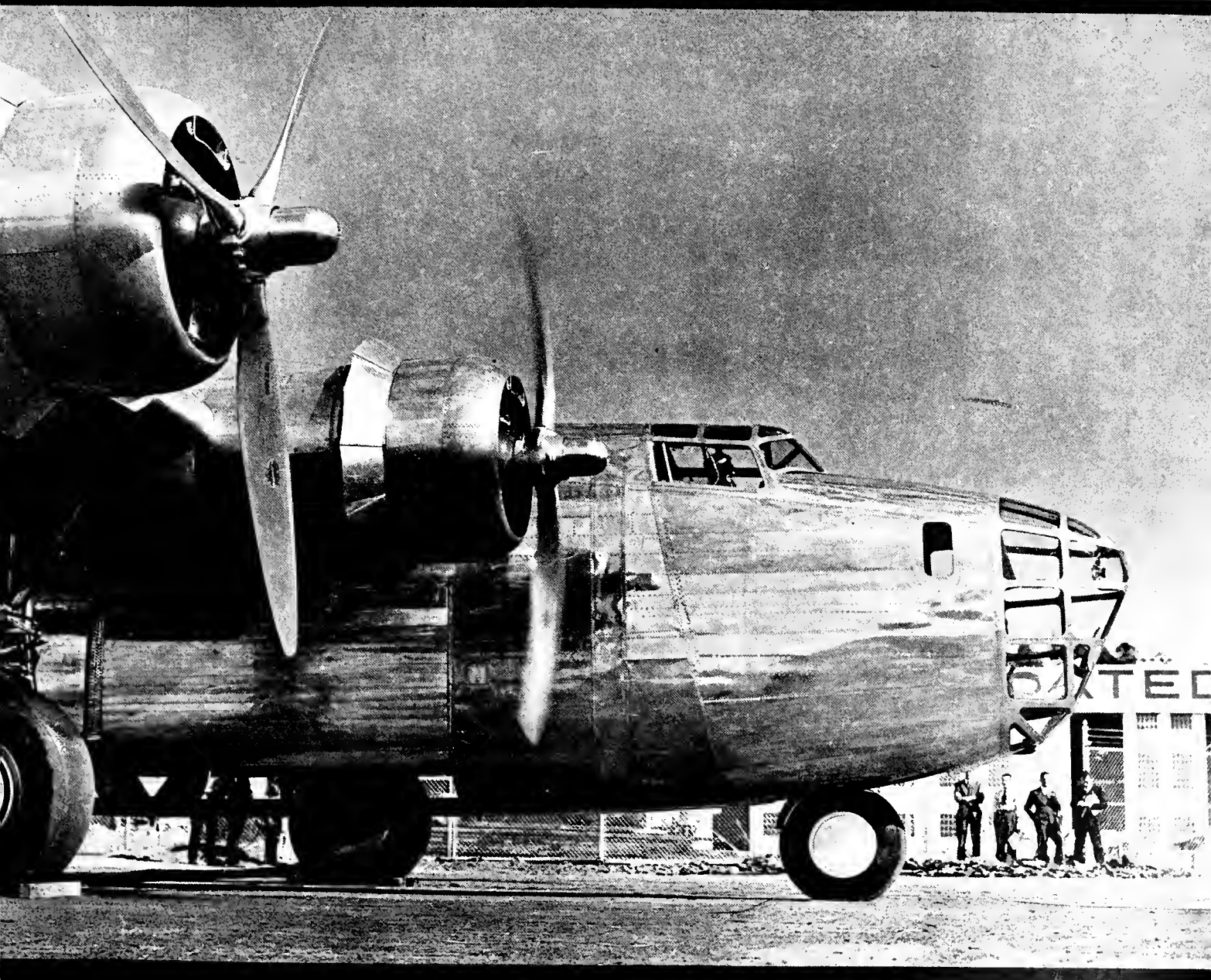
Five Ocean Rafts of logs moored in San Diego Harbor, containing 30 Million board feet of lumber to be manufactured at our Mill in San Diego. Width, 52 feet; Length, 1000 feet; Contents, 6 million feet; Binding chains, 200 tons; Depth below water, 24 feet; Height above water, 12 feet; Towed 1000 miles from Oregon.

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CONSOLIDATOR



THE ARMY'S XB-24 (Consolidated Model 32) STARTS TO WARM UP FOR A FLIGHT.

SEPTEMBER • 1940

Out of state, out of luck?



Ever hear the one about the engineer and the blonde? Seems the engineer was on an auto trip up near Yellowstone. The straight 8 he drove was a hooper-dooer—every gadget you could think of, and several extra. His **insurance** however **lacked** a couple gadgets, as he found out when some blonde piled into him at an intersection. The blonde attached his car first thing, and it turned out his insurance company had no ready facilities for issuing Release of Attachment Bond. So? So Joe (his name was Joe) had to wire home for the extra time and extra money it took to lift that attachment.

Text for today: a **good** insurance company would have had an agent in that distant place, who would have **lifted** that attachment like (snap) that. And Joe (his name was Joe) would have been on his way.



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CONSOLIDATOR

Volume 5

September, 1940

Number 9

MATERIAL FOR THE CONSOLIDATOR

The *Consolidator* needs good news about fellow employees and can use about all that is received, provided it meets certain requirements. To avoid offending anyone who submits material however, certain facts must be pointed out:

1. All material: Stories, news items and pictures, etc., must be completely identified with the clock number, department and name of the person turning in the material. This is important, because if any question arises as to spelling of names or just what is meant, the author can be reached quickly for checking.

2. When submitting pictures along with a story, remember that these must be *Glossy Prints*. Dull prints won't reproduce satisfactorily, and negatives can't be used.

3. Get your news in as early as possible. There is generally a deluge of material at just the moment when the printer's deadline must be met, which means that there is little or no time allowable for checking or reaching you to tell you what is wrong or lacking in the material you turn in, and therefore your material may not make the current issue.

4. Don't let a thing like not getting your first contribution printed stop you from turning in more items or pictures . . . keep on shooting in your material and ideas, but be very careful to comply with the above requirements. The magazine is yours, so let's hear from you!!

EXHIBIT . . .

Dioramas showing Consolidated paint shop and the final finish are now on exhibit in the windows of W. P. Fuller and Co., at 803 Seventh Avenue and 2911 University. These dioramas represent a portion of the display the Fuller company had at the San Francisco Exposition featuring aircraft paints and finishing materials. They are complete, down to PBY models under assembly in the yard.

CONSOLIDATED NATIONAL GUARD

That *Consolidated Aircraft* employees are fully cognizant of preparedness and contributing toward it, may be seen from the fact that a large group of men attended the Coast Guard summer training at Chehalis this year. With the deadline for this issue coming at the wrong time, full particulars of the participation and the training were not as yet available, as we went to press, but the following list of names of *Consolidated* employees in the National Guard will give some idea of the number of men who attended:

Adair, Theodore, Abel, John M., Adamson, Nevin O.

Bandy, Ralph D., Battles, Wm. R., Bell, Wm. C., Bilick, Chris N., Bogan, Geo. O., Bos, Joseph H., Bragdon, Roy M., Bryan, Donald H., Byrum, Geo. L.

Canada, Hubert L., Cardenas, Robert L., Carnett, Wm. A., Chastain, Wm. B., Collins, Thomas W.

Daenitz, Mortimer, Donnelly, Thomas E.

Farrar, Robert.

Garcia, Herman, Gilbert, Marvin M., Gilstrap, Maurice F.

Harer, Robert A., Harwick, Wm. J., Hayes, Paul J., Henderson, H. M., Hobbs, Harry A., Horton, Leonard M.

Isaacson, Edgar R.

Jones, Byron M.

Kauffman, Barton, Kline, Vincent B.

Layne, Jr., Newton M., Leaf, Wm. R., Luck, Jr., James B.

McColl, Winston L., McGehee, Wayne P., McLaren, Arthur, Maher, John A., Melching, Wagner F., Mariott, Wm. H., Morgan, Glenn R., Morgan, Keith C., Morrison, Walter R., Muse, Jessie B.

Odle, Kenneth R., O'Farrell, Jack.

Painter, Fields G., Papineau, Milton D.

Ramsey, Wilbert L., Renkke, Carl, Rix, Robert N., Root, Harmon B., Roundtree, Oscar, Jr., Rudeen, Roy E., Rush, Louis D.

Sammis, Herbert F., Scribner, John.,

Sherman, Claude B., Sleeth, Sterling S., Smith, Robert H.

Thickston, Wm. D., Tickner, Chas. A.

Wagner, Everett L., Watson, Albert O., Webber, Roy F., Wery, Emil, Westfield, Robert H., Wyman, Roy.

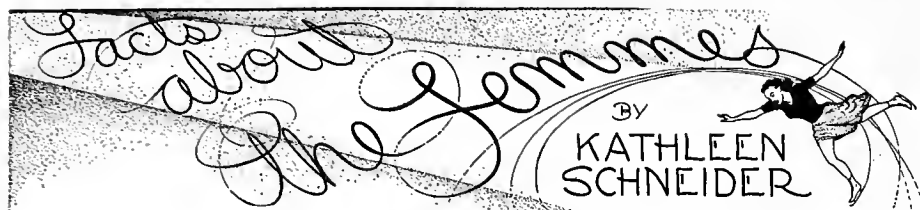
York, Jack C.

DEDICATION . . .

At the very last minute as this goes to press, plans for a fitting celebration of the completion of our new buildings in the form of dedication ceremonies are rapidly formulating, but as yet the details and definite schedule can not be obtained. As this issue reaches your hands the ceremony will have just passed and be fresh in your mind. What can be said of it in advance is that it will be a fitting occasion with a large number of distinguished persons lending their prestige to this event in *Consolidated's* history, and a large group of friends of *Consolidated* employees will be in attendance. The number of guests of individual *Consolidators* only being held down in number due to the necessity for restraining the size of the crowd to the number of persons it was felt possible to accommodate. Highlights of the event have now become of course, the speeches by Major Fleet and others, and the playing of *Consolidated's* newly formed orchestra. Thus is marked another milestone in the growth of *Consolidated* from its inception in 1923 . . . and in the words of the radio and the screen, "Time marches on!!" to which we parallel, "*Consolidated* forges ahead!"

HONORED . . .

Bert Freakley, foreman of the tube-bending department, was honored by the San Diego Aerie Fraternal Order of Eagles at dance given August 24th for his fraternal work since transferring from the Buffalo Aerie. In addition, the new class of members, initiated August 27th, was designated as the "Bert Freakley Class." Congratulations, Bert.



THAT new emerald on Ruth Sears' finger is more than just a ring, it signifies a wedding on the 26th of October. . . . After a strenuous lunch of orange juice, Lucille Fisher came back to find a tempting piece of lemon pie on her desk, but she didn't yield. . . . Anyone with a patent on dent-proof fenders please see Evelyn Kells, she's having a little trouble along that line. . . . Why doesn't Bob Combe give us a ride on the yard scooter as he did Mary Eleanor Meredith, we're envious. . . . Maxine Bennett is getting very streamline and it's very becoming. . . . Martha Coons has been transferred from Personnel to Purchasing, welcome! . . . Who's the handsome stranger escorting Edna Willwerth to lunch these days? . . . The gals in Personnel are now established in their new headquarters. . . . Juanita "Miss Blue" Smith isn't taking another trip home 'til she can resist that Iowa fried chicken. . . .

MODEL BUILDER . . .

John Kara of Metal Bench in 1939 completed a beautiful model of the Consolidated Aircraft plant as it was at that time. This model was displayed for a time in the main lobby, and later was sent to San Francisco to be exhibited there as a part of San Diego's exhibit.

This year in his spare hours, Kara constructed a new model of the plant, complete with all details. Since the lobby has become a bit small to hold the new model

At this writing Grace Fath is enjoying an airplane trip to New York City, and the World's Fair is just one of many interesting sights she will see. . . . Norma Haugard creates a sensation when she applies lipstick with her miniature paint brush. . . . Jane Dunn is all smiles since the arrival of her sisters from Buffalo. . . . Florence Cannon finally got a permanent after keeping us in suspense for weeks. . . . Clipped from the Union's Northeast Corner is this clever verse:

"Go to Father" she said
When I asked her to wed.
Now she knew that I knew
That her father was dead,
And she knew that I knew
What a life he had led.
So she knew that I knew
What she meant when she said
"Go to father."

—Chemistry and You.

and all those who would pause to inspect it, the model was displayed in a 5th Ave. window of Walker's Department store for a week, attracting considerable crowds and comment. Now the Chamber of Commerce is exhibiting this piece of Mr. Kara's craftsmanship for all who wish to see it, at the Chamber of Commerce Building. Mr. Kara is to be congratulated on this fine piece of work which he built in about 3 months of his spare time.

FROM THE JIG BUILDERS

By Pat Paxton

We are the gang you have not heard much about (Bob Watt's jig builders) but don't worry, you will. . . . we are growing in number and in prominence.

For instance, there is Jack (Jim Farley) Chudleigh. . . . who of you has missed him?

And now since Del Mar has opened up, Don Wilkerson is in training. He travels eight furlongs, four times per day and, he says, if there is a new consignment of bicycles, he will enter the next six day race.

Speaking about conscription, there is Tennessee Lejou—he has been oiling and polishing up his old squirrel rifle and he has been doing a bit of sniping around Pacific Beach.

Frank Broussee's gout is getting along fine. He will be chasing the fox up Reynard Hill almost anytime now.

Did you ever hear of Ken Cushinau, the golfer? Bring on your challenges, boys.

Joe Hickman is the proud father of a 6 pound 2 ounce boy that made its appearance Monday, August 12.

Herman Loescher resents the crack made at him last month about spending all his time eating while on a fishing trip. He says Robby Robinson and Elmer Basteck were just jealous because they were too seasick for food.

At this writing Les Ekberg was planning to merge into matrimony about August 24.

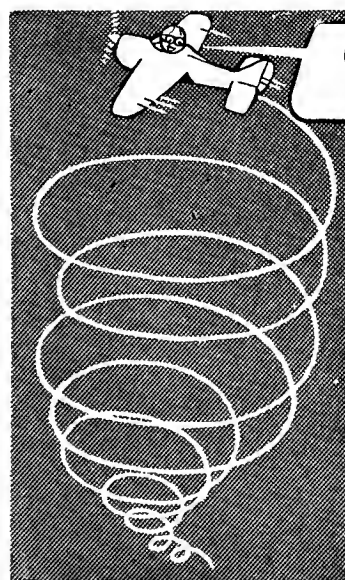
Tom Bignell was presented with an 8 pound heir, Thursday August 8.

Chas. H. Easley, Inspector, was joined by his wife and two children and a nephew who arrived from Mt. Vernon, Ill., on August 10. Their new home is in Chula Vista.

NOTE:

Pat Paxton, the clever fellow who writes our Tool Room news (From the Jig Builders) is too bashful to mention his marriage to Wanda Thompson on August 16. The best luck to them both!

Jim Hoeger



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with an angel!**

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San Diego's favorite
place to dine and drink

*fast service
*low prices

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RENDEZVOUS

Mission Hills Beauty and Barber Shop



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JOE GWINN . . .

ONE of the business clubs has a custom of introducing new members to its body by winding up its introductions in an informal manner something like this: "... and so fellows, now that I've told you something about our new member, who he is, and you now all know him by sight, just call him 'Jim'." To this the whole club responds in unison, "Hy, ya, Jim!" and the introduction is complete.

It is in the same spirit that we wish to introduce J. M. Gwinn, Jr. Most of those who know him call him Joe already.

"Joe" Gwinn, who joined *Consolidated* August first, really re-joined *Consolidated* for he was assistant Chief Engineer in the old Gallaudet Corporation when Major Fleet was its Vice-President and General Manager. Thus, when *Consolidated Aircraft Corporation* was formed in 1923, Joe Gwinn came into the new corporation as Assistant Chief Engineer. Col. V. E. Clark at the time held the position of Chief Engineer of our company.

When Col. Clark left, and I. M. Lad-don, our Vice-President and Chief Engineer joined; Joe Gwinn was engineer in charge of Unit No. 1. The corporation as then set up, operated in units, with each unit devoting its efforts to the production of a particular type of plane design. Number one unit produced training planes, so that when Unit number three was formed to build the *Fleet* planes, Joe Gwinn took over the engineering phase as these airplanes were closely allied with the trainers.

Later *Consolidated's* trend swung to the manufacture of our larger craft and the units including the engineering staffs coalesced into our present single unit. At this juncture Joe Gwinn branched out for himself, forming the Gwinn Air-car Company. The product was the well known Gwinn Air-car which he designed and built, and which subsequently received an A.T.C. This was the first A.T.C. issued for a stall proof, spin proof airplane. Misfortune, however, struck the struggling concern. Captain Frank Hawks taking the plane out of an airport, struck wires, crashed, and was killed.

Brewster Aeronautical Company purchased the design and manufacturing rights on *Consolidated's* small planes at about this time and Joe made himself available to Brewster as he was most familiar with these planes. He spent several months on the preparation of their bids for the training plane competition. Last fall he joined Bell Aircraft, builders of



the Airacuda and Airacobra airplanes, as chief project engineer, rounding out a wide range of engineering experience. And now once again he has joined *Consolidated*, taking a position here as Production Engineer, and is rapidly becoming acquainted with our vastly expanded personnel.

It is interesting to note for those not familiar with his career, that Gwinn started his work with a B.E. from Tulane University in Mechanical and Electrical Engineering, joined up with the Army in 1917 right out of college, and was a pilot during the war with the 27th Aero Squadron, seeing some active duty at the front. Joe likes California and its "climate", stating that the only difference is that in California we have unusual weather whenever there are visitors, and in Buffalo it is unusual all the time.

"X" NEWS

By Drowne

There just is no such thing as pleasing Stabenau for no matter what kind of hours a day or how many days a week he works, he says he can't get enough time for his flowers. His theme song should be "I'm So Sorry for Myself."

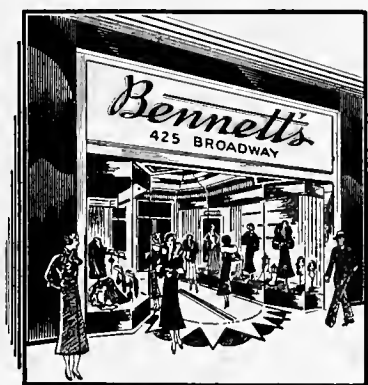
Otto is calling for all first-class bowlers for the coming season. Everybody will be given a chance for the 1940 team in "X" Department.

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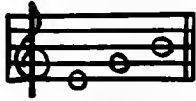
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MUSIC NOTES



By the "Maestro"

Elsewhere in this ever growing publication you will find the names and photos of "new arrivals" and "hopefuls"—but none will ever reach the popularity nor be any more desired than *Consolidated's* "New Baby"—the *Consolidated Glee Club*.

Our "child" is really precocious and being a "wonder baby," wrote up its own announcement as follows:

Arrived: 7:30 P.M., Aug. 1, 1940.

Place: 1816 Sheridan Ave.

Doctor: Richard Holtzclaw.

Note:—The following "details" make up the "assembly" at present, but more are needed to complete the job, so why don't a bunch of you "Barber Shop Harmonizers" join up and make this a "howling" success.

Kel Aiken, John Bleifuss, Jim McCoy, Joe Ouellette, Tommy Joubert, C. D. Maguire, Robert Mussen, Charles S. Morgan, Leonard Wisniew, Olan Sandin, Owen Stockton, Gene Price, Dick Holtzclaw, Glee Club Director.

METAL BENCH NEWS

By Rodriguez

Congratulations to Ted Brooks are in order—he became the proud father of a baby boy the other day. Thanks for the cigars, Ted.

Chester Duozinski came to work one Monday looking like boiled lobster. Was the sun hot?

Bill Waite and Bill Rasp just returned from their vacations. Bill Waite took a trip to Salt Lake City, by way of Mojave Desert, Grand Canyon, Zion and Bryce National Parks. Bill's only complaint is that he ran into heat—120° of it—in the desert. Bill Rasp took in the Fair in San Francisco. From there he visited the Sequoia National Park and the Yosemite National Park.

Frank Bailey had a nice vacation at Warner Springs.

That guy Joe England is a poor ball player. But the fellows say he talks a good game.

Larry Hamilton has a heart interest in Laguna Beach. He claims it may develop into something.

Joe Bickel squandered a down payment on a slick 1936 Zephyr.

Ivan Minnich has one pair of pants that are newly primed. Yes sir, pants,

badge, shoes, and all—that is, all from the waist down. Just ask Ivan, he'll tell you how it feels to have a can of prime dumped in your lap.

Our friend Al Kemp has quit taking the fishing boats out on weekends. We are wondering if his interest in the boats lagged or if they were stopped by Saturday night's over-time.

IN THE WRONG LOCATION

By Kel Aiken

IF you have anything else to do don't stop to read this column, for this is my first literary contribution to the *Consolidator*. It would be best to wait until I get better at this stuff—(that is real optimism). Anyway, I'll probably spell your name wrong, then you'll be sore and there is no need of getting anyone sore in times like these.

The big event of the month around the stockroom was the beach party held Sunday August 11 at La Jolla Shores. Many of the stockroom personnel attended with their families and friends. John Ruzich (Radish to you) proved himself to be in the cast-iron stomach class by drinking eleven bottles of strawberry soda pop. After roasting weinies, marshmallows, etc., the bunch gathered 'round the fire for some singing and story telling. The story telling was being nicely handled by Art Warner until Mrs. A. W. realized what the story was and nipped it in the bud as not being the type for mixed groups. Billy Hill had a trying experience by leaving his car keys in his pants pocket and his pants in a friend's car for safe keeping. Said friend left early with pants and keys. Billy worked three-quarters of an hour before getting his car opened, only to have his pants returned five minutes later. It is things like that that keep asylums full. Paul Wiler would have left early only he couldn't get enough fellows together to push his car halfway to La Jolla to get it started. John "Red" Parker was there with his wife. There is a nice harmonizing couple. Red says that he and his wife never argue, if Mrs. Parker says a thing is black, John agrees with her, if he says a thing is white—well, a fellow can be wrong!

Speaking of marriages, we wish to extend our best wishes to that ex-store-keeper, Norman Chudleigh, who, on August 17, said "I do" to that "fatal" question, "Do you promise to love, honor and obey, etc., etc." The new Mrs. Chudleigh is the former Miss Irene Elizabeth McAlexander of National City.

Ed Kellogg seems to have a sinister plot afoot against the Production Dispatchers.



YOU Can Afford a Fine Diamond . .

If you are a young man with limited income you need not sacrifice the extra brilliance and beauty of a truly fine diamond in order to keep within your price range.

In our stock is a special selection for young men. Engagement rings and matched wedding rings of thoroughly approved quality, yet of very moderate price. We invite you to see them . . . Prices start at **\$19.75** the set.

The convenience of special credit terms is extended to "Consolidators"



He has recently added to his staff the crystal ball gazers "Swami" Lovez from the storeroom, to supplement the work done by "Yogi" Zallizzi in ferreting our spare parts when lost, strayed or stolen by the Production boys.

Getting off the beam a second, I'd like to remind you that *Consolidated* has a new Male Chorus started and has been doing some swell work under able direction. But more voices are needed if you are interested, contact any of the fellows who are listed elsewhere in this month's *Consolidator*.

Bob Kemper reports himself out of quarantine now after a neighbor's boy came down with a contagious disease and the whole neighborhood put under orders of the Health Department. Bob says his boy is sure growing up—says he only hits the kid in self-defense now.

Insomnia trouble is claimed by Floyd Cowan . . . says it's so bad he can't even sleep when it's time to get up.

Well, I guess that's all the gab I can cook up this time, and knowing that this effort is infinitesimal compared with those eminent contemporary writers, Bradshaw, Boeing, and that "Thing That Comes Out at Night," Craig Clark. I'll wind this thing up by ending right here at this period.

LINES FROM THE LOFT

By Jimmie Spurgeon

ON Saturday, August 17, Carl Hiem, of bowling fame, took "for better or worse" Miss Unice Smith of this city. We recall the jovial mood of our Andy Clement before his "leap" this past June. Since then, Andy has developed on odd complex caused by getting only a short beer and a cheap cigar out of each pay check. Beware Mr. Hiem else you end up without even the beer.

We welcome several new men to this department but we also regret to lose several men. The greater number of the men leaving are returning to school to complete their education.

It is amusing to watch the long line of men waiting to spend their nickle in the new coke dispensing machines. What, with these new electric fountains "selling out" two and three times a day, you can see we have no dry men in these parts.

We had a man in the loft who envisioned for himself a small, tropical island out in the blue Pacific, where one only had to wander about, enjoying life and "living off the fat of the land." That man was Montie Manning and since his departure, we wonder if he really has intentions of following up this dream of

paradise he often spoke about. Anyway, it's a nice way to remember Montie, associating his name with the thought of great palms gently bowing to a soft, warm breeze on some South Sea hideaway.

Mr. Summers of the Loft, known to many as Blitzkrieg Bill, is experimenting with smoke screens for this department. His new equipment consists of a queer-shaped briar that appears to be a cross between a stogie and a ripe cucumber. (Now you can throw it away, Willie.)



We extend our sincere condolences to Mr. Irvin H. Owens, on the passing of Mrs. Lola Owens July 30th.

PLASTER SPLASHES

By Red Boyle

D. Klinger is back from his honeymoon. He seems to be okeh except that he has acquired one badly blood-shot eye and I can't tell what is the matter with the other one.

A. Mierlot has been spending a lot of time in Mission Beach lately. He will probably be the next to say "I do." He seems to be a little afraid of her. I wonder why?

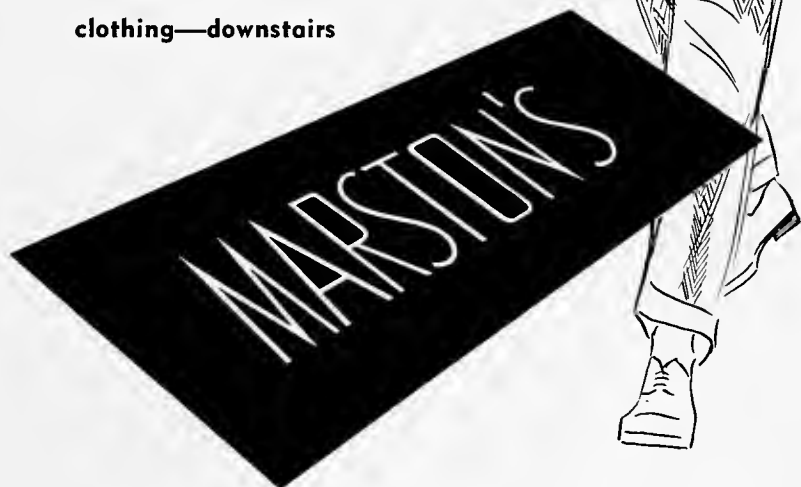
We are hoping that everything will turn out okeh for G. Woodworth, who cracked up his car recently.

We want to thank E. Seward for those cigars . . . that we didn't get.

here's smartness
at a price
you can
easily afford

. . . we believe you'll agree that there's a quality factor in a Marston suit which goes beyond mere styling and assures true smartness. See the new three-button models in soft sports fabrics or dressier worsteds . . . at a price permitting full measure of quality . . . just \$30!

clothing—downstairs



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HALL—200 WINDOWS
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FIRST AT "A"

PRODUCTION MINUTES

By "Brad" Bradshaw

JUST returned from a vacation, and after walking around "Treasure Island" with shoes on for a week, now I really need a rest. Spent several hours writing cards to friends which were just received. I wish the trash cans and mail boxes in Frisco did not look so much alike. Had trouble getting a date in the town as the reputation of Lou Miller, Louie Purcell, Matt Wielopolski, Howie Bell and other *Consolidators* had preceded me. Old Horatius would have had a busy day holding that "Golden Gate Bridge" as it is quite a stretch of concrete. It's a good thing they have "emergency stations" along it in case there is an "emergency"—took a peek into "Sally Rand's Nude Ranch" just to see how a girl looked wearing a "holster"—they wore nice "smiles" too. That's enough about the Fair, as I don't want to cut the attendance, go and have a look.

Old tired Father Stork has turned European and borrowed an idea from the Dictators as he turned loose a "blitzkrieg" with "dive bombers" on Mercy Hospital recently, Jake Dietzer, Raymond Frindt, Don Benson, Al Lehman, Jim Kite and Stanley Saville were the "hits scored" with the "bundles of joy"—funny that Winchell gets that news days ahead of me. Remember Jake, that Roy Coykendall is still in the "preambulator business."

From Joe Maloney's "Flower Garden" we are always able to "smell out" some choice tidbits that are ear soothing. The "changes" and P. V. O.'s lately have seen Jim Kendrick, the "Dixie Kid" make the fastest advancement to the "top"—Jim transferred to Loft—Kieth Hatter, one of the very few men to migrate from Iowa to California, is now assistant to Owen Stockton—you will have to ask Owen what he does, and La Verne Holcomb, has left Bill Wiley to suffer alone in Machine Shop, to mingle among the blue print femmes—must be pull to make that job. New releases to reach Joe are "Phil" Phillips, lucky stiff, Alice Vincent (single) and Beverley Kipple (married) "Dad Gum

It." It's not all "rosy" in the garden as Mary Jane Upton will tell you after those bruises forced her home—funny it happened the day after the legionnaires' dance—but get her version of the story. Maxine was at the dance too, but evidently that "Jiu Jitsu" Bob Marks has taught her came in handy as she returned in much better condition. The mystery of what happened to Beverley Kipple's eye is as dark as the optic itself. She claims it was done on a "put-put scooter" but that's no way to "putter" around. If Randy was responsible, he must have "slugged" her on the run as he works the night shift.

As usual, we find the first to turn from "passing the buck" to hunting him were Roy Coykendall, Glenn Hotchkiss and Bob Sebold who surrounded one old fellow, whose antlers had withered away to a couple of bumps, and gave him the works, Hitler style. There were so many holes that they brought home "venison hamburger." Roy says it was so hot and they shed so many clothes, it almost turned into a "bare" hunt.

The "frolicking females" of Production have organized a bowling team. One team of the "delicate delicious sisters" is captained by Maxine "Tuffy" Bennett with "Roughhouse" Lois Campbell heading the other. Members are Evelyn "Hawkshaw" Parkins, Gracie "Butch" Koenig, Mary Jane "Spike" Upton, and Veronica "Snipe" Paschen. Lois tried to bring her team the first victory with so much "Chin" support she dislocated a tonsil which required an extraction, and since has been showing her operation so often she is threatened with "lockjaw."

Happenings during the month, which are more authentic than European war news, as told to me. Since the openings between the tool design desks have been narrowed Bill Rennison and Roy Smeltzer squeeze thru only because they "strike below the belt." A few more avocados and Roy will walk around—"Mal" Malcuit offers a solution by having the teeth pulled and "gumming the food" for a while to slenderize.—Don "Puss" Drissell, after looking for days trying to locate those "Q" access holes, beads and "dimples", claims to be having better success with the latter since Miss Kligman has been smiling so sweetly at him on the journey out Adams Avenue—Wonder why Tom Butterfield and Benny Leonard have changed their minds about becoming Boy Scout leaders?—Dan Slemson and Bill Wiley, the "Damon and Pythias" or "Caesar and Cleo" as you prefer, took a trip to Catalina recently, and we are in the dark as to "who took who and who

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paid?"—Jim Eisman, bemoans the fact that Ben Kiegle snatched an idea from the Britons and has camouflaged his house trying a "starvation blockade" on him.—Al Ballard has an employee who wanted to fight a guy for trying to tell him that one-half of a 32nd was a 64th when he knew darn well that it took two 32's to make 64—you can't fool these California Graduates.—All this "Papa love Mama" and "Da Da" business has gotten the best of Les Matusek and Owen Stockton who plan on "squaring off" this month.—Jack Mulroy reports that his dispatching force is going great, and hold only "five" shortages, Wing, Tail, Fuselage, Engines and Tanks—when do we get the mezzanine on the parking lots?

WOOD SHOP CHIPS

By J. E. Hodgson

THIS month of August shows a distinct rise in re-production in the Wood Shop, the stork having paid five visits already and only half the month gone. We wish, therefore, to offer congratulations to the parents of the following newcomers:

Gary Wayne, 7 pounds 8 ounces, born August 2 to Mr. and Mrs. Cyril Thomas.

Donald, 7 pounds 8 ounces, born August 3 to Mr. and Mrs. Louis Ward.

Donald Lee, 7 pounds 7 ounces, born August 4 to Mr. and Mrs. Edward Hartz.

David Arthur, 8 pounds 2 ounces, born August 10 to Mr. and Mrs. Jack Benckner.

The newest arrival, who is just in time to be mentioned in this issue, is Miss Paula Younger, the daughter of Mr. and Mrs. Merlin Younger.

We may state here that all the above are getting along fine—especially the papa's.

A group of nimrods (fishermen to you) chartered a boat and while we were just turning over for the second half of our beauty sleep 2 a.m. Sunday, August 4, set out to catch fish, or sumpin. While other departments were well represented, the Wood Shop contingent were Mike Mullican, Larry Ireland, 'Mac' McGriffin, Frank Mische and Walt Gray. They took along some bottled 'oomph' and all had a good time. Larry Ireland won the 'jack pot,' whatever that is.

We are pleased to see Johnny Howell back on the job again after a sick spell lasting several weeks, and hope he is here to stay.

Our veteran swimming 'champ' is very much here again . . . at Balboa, California, on Sunday, August 11, John Woodhead, senior, was presented with a certificate for finishing in the 2¼ mile Donald Novis swim.

The ladies must be slipping this month as we have only one marriage to report . . . Harry Whittaker is the lucky man and the lady's name is Connie, though my informant did not know the rest of it. Congratulations, folks.

HULLabaloo

By Al Leonard

"WEE WILLY" Pettit, the little boy who answers the phone in the Hull Department showed up at work a couple of weeks ago adorned in a pair of dark glasses. After much persuasion, Bill removed them and disclosed a beautiful pair of black eyes. It seems that Bill, who is fresh out of school and still remembers reading Scott's *Ivanhoe*, challenged a certain knave to a joust of fisticuffs because he had made an uncomplimentary remark about one of Bill's latest flames. Bill rushed to the attack and was instantly set back on his rumble seat with a pair of shiners. Bill tried it again and this time received a bopp on the nose. As Bill was carried away he was heard to mutter "you shoulda' seen the other guy."

The Hull Department was slightly represented at the last meeting of the Rod and Reel Club. Due to the lack of members attending, those present had a very hard time absorbing the barrel of beer and the mess of hot dogs. After the refreshments Mr. Learman of the Loft Department entertained with his excellent motion pictures. It seems as though the club will have to organize a ladies' auxiliary so the boys that tell their wives they are going to the meeting will really have to show up.

The love bug is quietly doing its work to some of the boys in the Hull Department. Johnny Glenn, the gentle little lamb of the PBY bottoms, is on his last legs and is slated to go on the block by Labor Day. Elwood David, a member of the Consair Flying Club is keeping the Hull Assembly section in the running and should be Yuma-ized by the time you read this. Art Writson, hull clerk, is now on the engaged list and is slowly working up his courage with the help of Dan Cupid.

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HOT SHOTS FROM WELDING

By "Willie Winchell" Hartman

SEEMS like all the fellows in the Welding Department like to read our little effort each month and when a month is missed, oh how they groan and moan, but yet when a guy goes on his vacation, no one else takes it on himself to write up a column—so what—so this—the next time let 'em all take a crack at it and see if it is a cinch.

So much for getting that little speech off our chest. Al Wilson seems to have a harder time finding bowlers than he did ball players. Well, if he can't get any more than 14 pitchers on his ball team, how can he expect to get a 5-man bowling team?

If anyone, especially Pete Cinquegrani, needs any badminton equipment at all, we recommend Frank Kastelic. He says he can get it for you wholesale . . . where have we heard that before?

The Aquire boys, Jules and Felix, sure missed their calling. They should have been lawyers . . . why? Just start a conversation on any topic at all and it winds up with an argument.

Quite a few of the boys are taking trips to Yuma for the business of getting hog-tied. I can't name them all, so we will just say congratulations to all concerned.

If anybody loses anything we advise them to see Ernie Constantino. He can find the darndest things in the funniest places.

Vince Caldwell's chickens have kind of gone back on him. He hasn't had an egg from them now in 3 weeks. Times a wastin', Vince, off with their heads.

When the cat's away, the mice will play . . . ask Vic Perry or F. Kastelic, they know why and how.

Maybe George Draper can give us pointers on getting deer, but it takes Homer Higbee to show us where the honey is and it takes Art Endres to tell

us where to get rid of our money, but then maybe he shouldn't try to pick 'em all at Caliente.

Little Sir Echo Rimmer is a famous Balboa Park Artist. We mean a real artist with brush, palette, easel, et al.—he really turns out some very nice canvas.

Wonder how come so many of the boys are having tooth trouble. At least four of our boys have had trips to the dentist . . . Umm, looks bad, Roy.

We wish Dan Mellisch, our Magnaflux operator, would buy another hat—the one he's wearing looks like a Nebraska nightmare . . . one of those accidents going some where to happen.

Dick Stone is beginning to worry about his grey hairs . . . tch, tch and such . . . a young man, too. Well, you know, burn the candle at both ends brings bad results or something.

Tiny Campbell feels as though he can breathe now that we have expanded. He says he couldn't get room to stretch before. Well, with that cute little mustache you have you'll need more room, Paul.

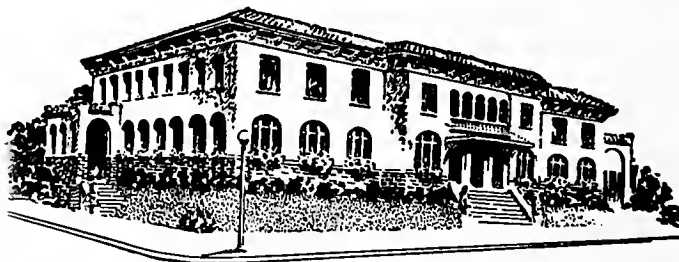
Little Paul Ferrara has taken to writing love notes to the day crew . . . also, you better lay off Paul or you are going to be sorry.

Our baseball team wanted to be remembered in this column. After that last game, there just "ain't no comment."

During the recent Legion convention Bill Wolfe was seen driving round and round the Plaza. Once he almost didn't make it and came pretty near driving into the fountain. Yeah, it's mighty powerful stuff this year, Bill.

What group of Pacific Beach residents went for a wild week-end to L. A. and are now in the well-known doghouse?

We knew that "Windy" Roher would have the police on his neck sooner or later. Windy is quite the model airplane builder—in fact he's so good at it that one of



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his models landed in a tree and a neighbor lady called the police and told them parachute troops were landing, plane and all. When the police arrived, Windy sure had to talk fast and long to get himself out of it. They—the police—told Windy when he wants to shoot those things around he's to go away . . . far away.

SAN DIEGO FLYING CLUB NEWS

By "Spike"

FOLKS, you really missed something if you weren't at the Club's Get-together Sunday, August 4th. For that's just what it was—a get-together. The afternoon was high-lighted by a spot-landing contest while the spaghetti dinner took the evening's headlines. We have no record of just how many pilots competed in the contest but two Consair Engineers, Bruce Craig and Tom Hemphill, tied for first honors after some mighty nice flying.

In spite of the fact that the three gallons of "appetizer" ran out a little early, the sixty odd members and friends who stayed for dinner did due justice to the spaghetti, vegetables, and water melon. Other amusements consisted of ping-pong, hangar-flying, horseshoes, more hangar-flying, penny-ante, (who said dimes), Chinese checkers, pin-ball machine, Coca Cola, and, oh yes, hangar-flying.

The credit for the whole affair goes to Social Director Fred Young and his "Women's Auxiliary". The Mrs. Travis, Peel, Butterfield, Young, MacDonald, and Goodyear "rolled out" the spaghetti and Bob Goodyear gets a BIG hand for washing the dishes.

Johnnie Testa and Bill Bunsen each acquired the coveted private ticket July 17 and Aug. 2, respectively. Johnnie has since purchased a Warner Travel Air. More "revs" to you Johnnie. Walter

Kostew soloed recently and soon after had his tonsils blitzkrieged. 'Smatter, Walt, did your head get so big that there was no room for tonsils?

New members include Gene Allara, E. C. Denyer, M. A. Meyenberg, and Johnnie Mayak. Glad to have you with us boys, happy landings. And to you readers, we're located at Grande Vista Airport, 4 miles south of Chula Vista, on the hill. "Come up and see us sometime." Unquote.

SOUTHERN CALIFORNIA FLYERS NEWS

By Joe Havlik

SEEMS that old Professor Knowledge is beginning to rap on the skulls of a few of our older members who are about due for their private license. The typical greeting of one member to another is, "What factors would you consider in selecting your altitude for a cross country flight?" instead of the usual "Hello."

One sometimes wonders if Ken Smith ever plots out his course before he takes off on his motor glide, and if Pat Dowling and Bob Sprague are studying their rules and regulations so that they can keep track of Kenny.

Sunday, August 11th, found a group of the members out at Duke's Stables piloting the ponies over hills and dales. Among the group were: Mr. and Mrs. Fredrick Robertson, Mrs. Robertson's sister, here visiting, Bill Luffy, Ray Dinsen, Pat Dowling and their lady friends, and the writer.

August 18 was a big day for the members of the club due to the fact that the club's Waco INF was brought down from Seattle by instructor Al Griffith. Al took the trip to Seattle on the Airliner and flew our ship back to the field where the ship is hangared for the club's use. The Club will have a party inaugurating our new plane into the club.



— with Bud Landis

The thing that makes baseball what it is to date is that to score, a man must touch all bases.

A batter may fill the sky with clouts. Yet if he can't get away quick, he might as well be in the dugout.

A runner may go around so fast they have to bank the turns, but if he doesn't touch second he can just as well head for the showers.



Diamond cutting is an idle gesture in our national pastime. A player needs must leave home hastily, make the rounds without errors or omissions, and get back in safe.

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CONSAIR FLYERS CLUB, INC., NEWS

By Barney Farley

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ly speaking, has certainly been well up on the list of those who are the most active. On week ends the club's ship is on the go from dawn to dusk. Members are piling up time. Ours is what you might term a "flying outfit"—everyone flies.

Events of the month begin with Elwood David, who, in the record-breaking time of a little less than three months from learning to fly, has obtained his private pilot's license. All flying was done in the club. When this is printed Miles Blaine, also, should be the proud possessor of a private, with Steve Brown next.

By the way, David made a statement which has only one meaning. He wants to take a cross-country hop to Yuma with his girl friend! David will find himself with a private license, a marriage license and a bride, incidentally. This should be enough to keep one man happy.

Orv Hubbard is busy with the C.A.A. refresher course given to commercial pilots who wish to obtain the new instructor's rating. Orv reports the set-up to be excellent and encourages all who can, to do likewise.

The club also has its late solo members. DeVorak and Brothoway made the grade by soloing out this month. Reports and flying activities prove that these fellows will soon be among those who go up for their license.

Arthur Becker, club president, has left with his ship on a cruise for an undetermined duration of time. Since he left we have received letters from him postmarked from various far-off places. These letters state that everything is going well. Becker reveals that he would like very much to be back flying with the club, but also states that he doesn't know when. He cannot say where he is—strictest type of Naval regulations, you know.

Peterson has purchased a 'Model A' to get him to and from the field and elsewhere. Pete is very much in earnest about obtaining his commercial rating, and can be seen at the field early and late practising. Ask Pete what he would like to do more than flying, and he will tell you more flying—in the daytime.

Jones has been down to fly again. He

is one of the fellows who returned from a cruise.

A number of inquiries have reached us regarding our club. We still have a number of memberships open. If you really want to fly, drop down to the field, see the ship, and meet the fellows, no obligation.

PAINT SHOP NEWS

By Bud Dale

ANY one interested in salesmanship might try selling the Brooklyn Bridge, or *anyone's* tools, to Carl Johnson or Kent Dudbridge. We guarantee a sale.

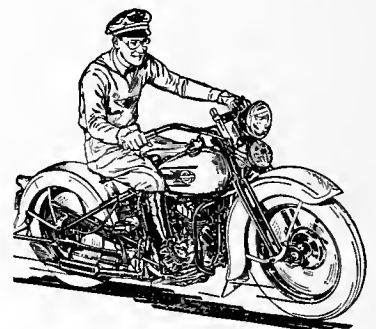
Frank Finn has left our midst for an advancement. He is now at Ryan's doing well as an inspector.

Our sincere sympathies for George Hunt who succumbed from injuries received in an auto accident Sunday August 11th. A. N. Hall was seriously injured but is recovering at the County Hospital.

Congratulations to Mr. and Mrs. Donald MacGillivray. A daughter, Miss Dona Jean, was born July 29th at Paradise Valley Sanitarium. Mother and daughter are doing fine . . . also, proud papa.

Al Griffith, one of the paint shop's bids for air supremacy, went to Seattle August 16th via U. A. L. to ferry back a 3-place Waco for service in the Southern California Flying Club.

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DISCIPLES OF IKE WALTON . . .

WE'VE heard of fishing trips, and their fabulous catches. Some of these are undoubtedly bona fide. But occasionally such exploits need investigating and elucidating just to keep them from getting out of hand. The tales that come back sometimes are a bit too tall for taking, even with a considerable quantity of salt. To forestall any such tales, we dispatched one of our undercover men to get the real 'McCoy' on certain fishing trips involving members of our personnel and their friends and associates. The particular fishing exploits referred to involve the following persons: Jack Thompson, Frank Learman, Henry Growald, Jack Larson, Frank Fink, Bruce Aitken; A. R. Blair and F. A. Firth of the British office; C.A.A. Representative W. M. Cline, Bud Snyder from Dayton and Reg. Fleet who came all the way from Atlanta, Ga.

Undoubtedly a lot could be said about the size of the fish caught, the struggles these men put up to land their catches, and even though we're ardent boosters along with the Chamber of Commerce about our fishing waters, and would like to let these things appear in our columns, still there has been some exaggeration. Therefore, in lieu of just plain words that might be misconstrued, we submit the photographic evidence shown. It becomes obvious that the 'catch' (over which Frank Learman is quite evidently pleased) has put up a terrific struggle before quailing before the masterful manhandling used in bringing it to gaff.

The other photograph is typical, so we are informed, and shows our stalwart nimrod Jack Thompson in one of his fighting fishing stances. Soon after discovering the photographer taking this shot, Thompson in a magnanimous gesture characterized with hand and thumb waving in the vicinity of the nose, cautioned the photographer that the taking of such pictures was fraught with personal dislike for publicity over his prowess as a disciple of Ike Walton. The gesture was caught by our photographer, however, and we'd be glad to show it to anyone interested.



There's just one other point that might be mentioned to completely debunk this fishing foray: The seagulls must have been following the boat for some reason. The catch (they would immediately recognize) is hardly worthy of waiting for. It is therefore assumed that not only was this group rather weak as fishermen, but also rather frail as regards their stamina pertaining to seamanship.

GLIDING AND SOARING

By Vic Korski

BY the time the *Consolidator* reaches you the Associated Glider Club of Southern California will be boasting of two club-owned sailplanes. At the regular meeting on Friday, August 9 the club gave final approval for the purchase of a single place "Baby Albatross" for solo training. Ernie Stout (Engineering) and Scott Royce (Engineering) with Jerry Littell (Inspection) running a close third, were responsible for the club taking action. It was in this ship, known as "Thunder Bird," Woody Brown set the national distance record of 263 air miles.

Things are brightening around the field since Harry Comer (Tool Room), brush in hand, splattered a lot of green paint on the hangar. Also, the red and cream two-place Grunau has just come from the workshop. Ray Parker (Model Shop) had the ship in town for an overhaul and now he has one of the flashiest crates in town.

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NITE WOODSHOP NEWS

WELL, boys, here we are back again with news from the night—naturally more things happen to us because of the extra hours spent in semi-slumber . . . at least that's where Walt Spooner seemed to be the second night of 10 hour shifts, for he was caught pulling hair from his arm at 1:05 a. m. prior to a trip to the



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band saw. Just a safety-first measure to make sure he was still awake.

Secor has added an Oldsmobile to his list of weapons used in pursuit of cupid and from what we hear, he may be nearing success at last . . .

Not to be outdone by others, Davis has at last laid aside the old crate we used to dodge—and now sports a . . . Dodge, boys!

Going ritzy on us, those gay men about town, Eddie, Larry, Red and Walt S., have rented a house by the bay for one month—price? Well, you guess.

We had hoped to run a picture in this edition of the increase in a certain young man's family—but it seems upon investigating the rumor we find—not a child—but a mother-in-law come to visit, so your reporter beat a hasty retreat . . . I have one, too.

To all the fellows involved in making our blushing grooms—Melega and Bailless—speechless by presenting them each with coffee makers. The boys want to express their thanks. And an invite to coffee and doughnuts some a.m. after work may soon be forthcoming.

Bill Thomas' wife has left the little home on wheels we told you about last month and is visiting in Chicago. Which leaves him to harmonize with sundry other gents whose wives are taking the family vacation this year while papa earns the "means."

By the time this is off the press, that

lively little engineer-to-be-Peterson—will have joined the ranks of "skull pounders" at "Cal." Good luck, Pete, and may you always have as ready an answer for the prof as you have had here.

Have you noticed the cowed look on Woody's face? It happened in this way—a widdle biddie mouse came out to play which frightened certain people present. Our hero rushed to the rescue bent upon sudden destruction of said mouse. Was the mouse pulling a blitzkrieg or was Woody's pants leg the nearest hole in sight? Minutes later we find Woody in the garage just returning his trousers to their proper place—and now you know.

We may presume Lou lost some of the smugness over the good deal he got in a Studebaker when he arrived home with it, for from the looks of that little man's family, a bus would have been more suitable.

Sudden and vicious action is threatened by a certain young man should the news be printed that he approached the shaper man with a job requiring a $10\frac{1}{2}^\circ$ closed angle. "I want a $10\frac{1}{2}^\circ$ shut angle" and he didn't care whether the shaper was set at $100\frac{1}{2}^\circ$ or $79\frac{1}{2}^\circ$.

And then there is the case of young Johnny starting blithely out upon his search through the plant for a square router bit to be used in cleaning out square corners in dural blocks.

We understand, by the way, that a law is now being enacted compelling people to stay married for at least two years, so that the furniture stores will get their money.

FISHING . . .

By T. J. Woolaid

ON Sunday, August 4, about thirty employees from various departments of the plant enjoyed a fishing trip to the Coronado Islands aboard the charter boat Golden West.

We got underway at 2:30 a.m. and after picking up live bait at the live bait floats, reached the islands about 5:30.

Yellowtail proved to be pretty scarce but barracuda were everywhere and soon every one was busy hauling the "snakes" aboard.

Irving Craig, the champion bait caster of the Loft Department, says that the fellows near him conspired to take his championship away from him—each time he would make a cast some one would pull his line in. The fellows just could not keep their lines out of his way.

Bill Plympton of Tool Room picked a

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spot near the bow to do his fishing and showed the result of his selection by making a nice catch of barracuda and bass.

Mike Mullican began fishing before leaving the harbor and swears he had a big strike near the live bait floats. Most of the fellows say he snagged a piece of kelp, but it probably was a big sardine that escaped from the bait tank.

Larry Vreland of Wood Shop and Edward Lang of Navy Inspection shared the honors in catching yellowtail with one each. Vreland won the jack pot for having the largest fish. The fellows say that Vreland passed the deck-hand who gave out the colored buttons used for fishing positions three times and secured a button of each color as he fished from the stern all day.

Milt (horizontal fisherman) Hanger of Tool Design was able to do his fishing from a vertical position on this trip.

Due to the effort of casting such heavy bait, the boys required constant doses of A.B.C. Supreme and similar medicines and were soon showing decided improvement.

The particular brand of medicine used by Walt Gray of the Wood Shop made Walt insist on the deck hand gaffing his fish—one eight-inch sardine—the effort of bringing the bait to gaff proved to be too much for Walt so he went to sleep.

Harry Gillen, George Gearhouser and Lew Pfeil of Tool Room started to sing with disastrous results. The sound was an exact duplicate of the mating call of the bull seals and soon the water was full of "lady" seals looking for mates. When the seals came, the fish left, so we decided to move—after several moves without improvement of fishing conditions, we decided to call it a day and head for home. Most of the fellows had enough fish and

were ready to go. Nice catches of barracuda, bass, bonita, sheepshead, and two yellowtail were aboard.

The fellows nearly wore out the two yellowtail by posing for pictures with a yellowtail in each hand. If you readers should see one of these pictures, remember that only Lang and Vreland caught yellowtail on this trip so don't take the fish story about catching two yellowtail too seriously.



DRAW BENCH BENDS

By W. Fink

AL WIEGAL is now the proud father of a 9 pound 9 ounce baby boy. Of course the young man will be called Alvin Wiegall, Jr. Both parents and baby are doing fine.

Bob Seebold, the mighty hunter, reports that on a recent deer hunt, his party was successful in bagging one deer. Glen Hotchkiss and Roy Coykendall were the other two members of the party. Incidentally, Roy seemed to have a little difficulty in climbing fifty feet uphill. Bob said "it took him two hours," how about it?

We are sorry to announce that Chester Sheppard is confined to home because of illness. We all wish Chester a speedy recovery and hope to see him back here soon.

William Gramse once again is walking around with a worried look in his eyes. How long before the stork visits your house again, Bill?

Ed Isacson, has spent the last three weeks with the National Guard up in Washington.

Both Art Randall and Bubbles Shepard returned from their vacations looking more tired than ever. But now, after a week of labor they both look fine and fit.

Curley Colton has been having a bit of hard luck lately. First he was confined home with a troublesome leg, and now it's his teeth.

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DRIFTING THRU DRAFTING

By R. R. Hoover

SOMEHOW the trite old "How're they goin'," "What's new" and other Bromidic greetings fail to draw out the interesting and oftentimes amusing experiences and "misfortunes" of our fellow draftsmen, and we have to resort to "Drifting" to keep ourselves acquainted with the more human side of our department personnel. So don't hesitate to bring that good joke on So-and-so, or that honor earned by Such-and-such, to our attention for possible entry in our column!

A great many things have happened since our last issue, not the least important being the admission of Henry Growald into the Coastguard "Ice Patrol" as Reserve Officer following his completion of certain "ground work" at the Glacier Gardens. It is our understanding that Henry received certain "decorations" which prove beyond question that he must have gained an intimate knowledge of this subject!

Then our Calexico correspondent sends word that during a recent chat with a friend in that city, Wendell Eldred was heard to ask whether a certain peculiar sound he had been hearing was related to one of their frequent tremors. The

Native replied that the sound was new to him and the subsequent investigation into the source produced the startling discovery that Wendell's green trousers were being devoured by a small host of banqueting grasshoppers! In the interests of economy Wendell recommends that visitors to Calexico wear raiment of a less inviting and appetizing color!

The Fixed Equipment Group has been awarded the prize of the month for "Extra-Curricular" activities due to the staging of two weddings: Herman von Goodat's and Harry Steele's, and the arrival of a son and daughter respectively to the two Joes, Hampson and Smole. This should explain the pall of smoke frequently seen hanging over the F. E. Group during the past weeks.

We have heard of "born" Republicans and "hide-bound" Democrats but it didn't seem possible for these terms to cover such extremes as are described in the following graphic example:

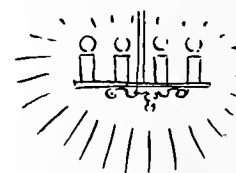
Picture if you will a man disrobing for the express purpose of going to bed. Note that he carefully removes the Wilkie-McNary button from his coat and pins it to his shirt front. Then observe how in due course of time this button is removed from the shirt and carefully placed on

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the dresser where it is accidentally covered by a carelessly tossed billfold. Allow a short lapse of time and picture this same man tossing restlessly in bed obviously laboring under some intense mental strain. Another violent toss and he jumps from the bed and rushes to the dresser where he frantically gropes about. A short period of this searching and he is seen to turn from the dresser with a smile of relief to return to his recently deserted bed. Shortly happy sigh followed by the even breathing of beatific slumber! What a startling metamorphosis! Tell us Sid Avery, could that glint of light on his chest, be the reflection of the street light on a Wilkie-McNary button?

It has been said that there is nothing new under the sun: that everything supposed to be new is just a modification of something which already has been. It seems the proverb is borne out in even the ultra-modern Power Plant Group for though Felix Kallis has designed an engine test stand which is right up-to-the-minute, yet he has provided it with a control cage which smacks loudly of Chic Sales and an intimate yesterday!

However, the wheels do lend a modern touch suggesting a conveniently mobile and homey appendage for attachment to

a house trailer and then perhaps the control cage merely expresses an enviable versatility of design on Felix's part?

Modesty is admirable, but it seems to us that John Brahtz of Structures Group should receive the credit due him for winning the La Jolla entrants First Prize in the recent rough water swim held at La Jolla. In this same event, Larry Bayliss of Power Plant gave John a good race all the way to finish second by a scant margin. Now this is very interesting news, but the thoughtful observer might detect a hidden significance in this Bayliss-just-behind-Brahtz performance. You see history reveals that John Brahtz entered this same swim event last year and was doing fine until an unexplained happenstance sprained one of his big toes, forcing him to leave the race! Now since his toes are so important to John's best efforts, isn't it possible that Larry might have trailed him just to guard against a repetition of last year's misfortune? What do you think?



TOOL DESIGN TID-BITS

By Maguire

FOR a few days this month, news from outside the Department was almost as important as news inside. Yes Sir! The Legion was here and how! It was Hi! Buddy, have one on me, etc., etc., for a few days. We had a few Tool Designers there on the welcoming Committee, too. Such as Wes Kline, C. H. Smith, C. L. Bennett, R. J. Knight and F. W. Carmody.

Cline, Dept. "D. A." seems to be losing his grip. He hasn't had a case in a month, and to make matters worse, he's moved up close to Eng.

Giesselman's board looks like a "Duck" Pond.

See picture section of this issue for reason Perry rushes home—Cute, Huh?

It has been reported that Ted (Lightning) Hersh has two assistants, one to yell "there he comes" the other to yell "there he goes."

Bennett, Welty, Peters and maybe a few others had Bennett's birthday celebration down in the Grant last week. You don't look a year older, Ben.

Minch has a new pair of pants—did I hear I'll say I did!

Due to heat, trips up north, sail boats, singers, etc., no one has done anything that Dave will okey—So—.

New in the Dept. this month: W. Cobb, J. Smith, R. Atchison (Trans. from T. R.) H. Daily (Ditto) G. S. Ludeman (Trans. from Purchasing) and R. Loftus.

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HYDRAULICS AT CONSOLIDATED

By BEN LIVERS

LESS than two years ago it was decided that there must be something to be gained by using hydraulic controls on certain mechanisms requiring more power than is easily produced by man. Previously *Consolidated* made use of electric power where this kind of service was required. The electric powered systems have been good and have indeed been a credit to our products, however, cost and weight both tend to encourage the study of other means of doing the heavy work necessary around large planes such as we have been building. It was natural that we make a study of hydraulics because so many other companies, both in this country and in Europe, have been notably successful with hydraulically operated mechanisms.

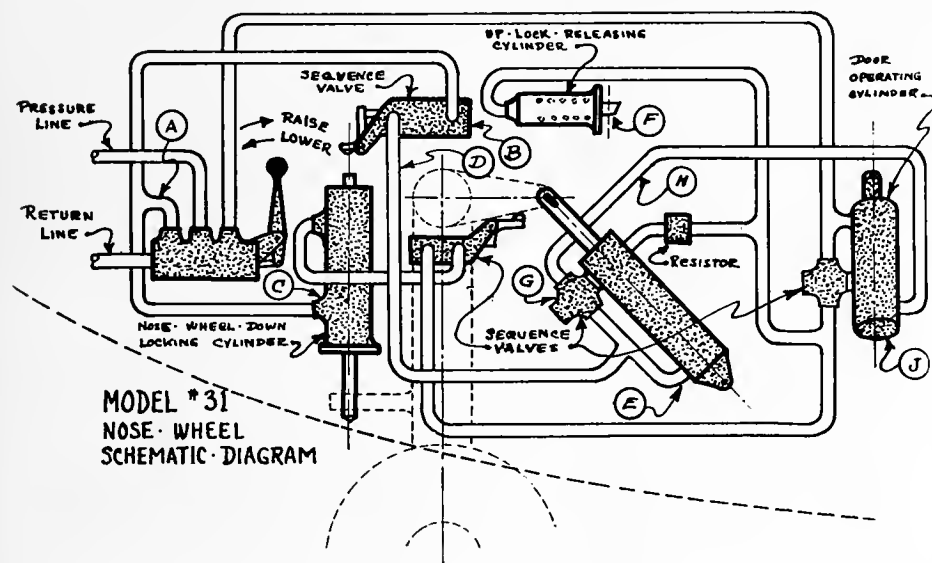
Our first serious effort to take advantage of the benefits offered by this source of power was made on the Model No. 31. As most of us know, this airplane has a retractable beaching gear, which is carried with the airplane at all times. It also has retractable floats and *Consolidated-Fowler* type wing flaps. Because of the fact that during normal flight the hydraulic system is not used to operate the beaching gear, floats or flaps, it is put to the useful task of furnishing power for the Sperry automatic pilot. The central or pumping system consists of the following units: The reservoir, located just aft and below the front wing spar in the hull, contains approximately seven gallons of mineral oil. Suction lines go from the reservoir to each of three pumps. One

gear pump driven by the port engine, another gear pump driven by the auxiliary power plant near the rear entrance hatch and the hand pump located on the port side next to the beaching gear well. All pumps are connected to a common pressure line, which goes to an unloading valve located near the reservoir. The unloading valve is a device which relieves the pumps of their load when no work is being done. In addition to the one inlet, the unloading valve has two outlets. One goes back to the reservoir and the other to the accumulator. The operation is such that a pressure of approximately 800 to 1000 lbs. per sq. in. is maintained within the accumulator. As soon as the pressure drops below 800 lbs. per sq. in. the unloading valve "cuts in" and the fluid which was being returned to the reservoir is forced into the accumulator. Flow will continue in this manner until the accumulator pressure reaches 1000 lbs. per sq. in., at which time the unloading valve will "cut out." It then allows the fluid, which is constantly being pumped, to flow, under very little pressure, back to the reservoir, and at the same time holding the high pressure oil in the accumulator. The accumulator is a spherical vessel used for storing oil under pressure. In order to store any appreciable quantity of oil, which is incompressible, a compressible or elastic medium must be introduced. This is done by making the accumulator in two hemispherical halves, which are separated by a synthetic rubber diaphragm. The lower

half is filled with compressed air under a pressure of approximately 600 lbs. per sq. in. before any oil is allowed to enter the upper half. When oil is forced into the upper half, the air is compressed further in making room for the oil. The air and oil are always under the same pressure and are separated by the diaphragm. It can be seen that in raising the pressure of the air from 600 lbs. per sq. in. to 1000 lbs. per sq. in. the pressure is nearly doubled and the volume nearly cut in half. This reduction in volume is the amount of oil in the accumulator. High pressure oil is piped from the accumulator to the five selector valves used to operate the various mechanisms. All return fluid passes through these valves and is brought into one line and returned to the reservoir. Motion for the flap is furnished by a single large cylinder connected to the two panels on opposite sides of the airplane by means of a system of cables and push-pull rods. Originally the airplane was not equipped with an accumulator and special metering restrictors were installed for the purpose of slowing down the action of the flaps. It was thought that the type used would cause considerable change in trim and if operated too rapidly would make the airplane difficult to control. At first the metering restrictors were adjusted so that the flaps operated in 20 to 25 seconds. After a few flights it was decided that more speed would not be objectionable. They were adjusted for more speed and again tried,

and again more speed was requested. After adjusting the metering restrictors to the limit of their adjustment and finally sawing off the metering pins the speed was increased to approximately 10 seconds. Since this represented the maximum speed possible with the system as then set up, the next request for more speed called for a basic change in the system. In order to provide for the transfer of fluid at a rate more rapid than the pumps could pump it, the accumulator was installed. A larger selector valve and larger lines were put in to replace the original ones to reduce losses due to fluid friction. This change brought the operating time down to six seconds and is now considered satisfactory.

ages, etc., are the selector valve, the double acting down lock cylinder, the double acting retracting cylinder, the single acting up latch cylinder, the double acting door cylinder and several sequence valves. To trace through one cycle of operation let us suppose the selector valve handle is moved to the "wheel up" position. High pressure fluid is now allowed to enter the up line from the valve, and fluid which is in the down line has an open passage back to the reservoir. The high pressure fluid in the up line goes without restriction to the lower connection of the down lock cylinder and at the same time to a connection on the sequence valve located just above the down lock cylinder.



It will be noted that there is almost no change in the airplane's trim throughout the entire range of flap motion and therefore the speeding up of the flap operation was possible.

The main beaching gear and float controls are rather simple and conventional, whereas the nose wheel is more interesting because of its greater complexity. In retracting the nose wheel the following operations must be performed in sequence: First, the nose wheel down lock must be released; second, the nose wheel must be raised third, the nose wheel must be locked in the up position, and fourth, the nose wheel doors must be closed. These operations are done automatically in proper sequence from one control valve. The valve is reversible so that the reverse operations in reverse sequence are performed in lowering the nose wheel. A brief description and reference to the accompanying sketch should show how this is done. It can be seen that the main hydraulic units, not including beaching gear, link-

TO RAISE:

1. Control lever moved aft.
2. Fluid goes out (A).
3. Fluid is stopped at (B).
4. Fluid enters (C) and raises down lock piston.
5. Piston opens sequence valve (B).
6. Fluid goes out (D) and enters (E).
7. Main retracting cylinder extends raising nose wheel.
8. Spring latch (F) holds wheel up.
9. At same time sequence valve (G) is opened.
10. Fluid goes out (H) and enters door closing cylinder (J).
11. Door closing cylinder extends and closes doors.

As long as the down lock piston is in the down position the sequence valve is closed and fluid cannot pass through it. The full pressure is therefore acting on the lower surface of the down lock piston, with the result that it moves upward to the limit of its travel, unlocking the nose wheel and at the same time tripping the sequence valve so that the fluid can pass through it. The fluid which gets through this valve is then piped to the lower end of the main retracting cylinder so that the cylinder

extends and retracts the nose wheel. As the wheel reaches the retracted position two things happen nearly simultaneously; the spring loaded up latch snaps under the supporting lug provided on the wheel strut and a second sequence valve is opened as the piston reaches the upper end of its travel. This sequence valve is built integrally with the upper end of the main retracting cylinder and is actuated by the cam action of the piston itself within the cylinder. The opening of this sequence valve allows fluid to go to the door closing cylinder. As the door closing cylinder is extended the doors are closed. In lowering the nose wheel the selector valve is turned in the opposite direction and high pressure fluid is admitted into the line which was formerly the return line. Fluid is led through this line directly to the door cylinder so that the cylinder is compressed and the doors opened. As the piston reaches the end of its stroke it operates a sequence valve built integrally with the cylinder. The opening of this valve allows fluid to go to the small single acting up latch cylinder, which is used to unlatch the up latch. Pressure sufficient to operate this cylinder is built up by the use of a device known as a restrictor. A restrictor is a valve composed of a relief valve and a check valve so that fluid will flow through it one way with very little restriction, whereas in the other direction fluid will not pass except at pressures higher than the setting of the relief valve. The pressure setting, which is adjustable, is made sufficiently light so that the unlatching cylinder positively operates before fluid can get through the restrictor. When the fluid does get through to the upper end of the main retracting cylinder the up latch is already released and the nose wheel is free to be lowered. As the nose wheel reaches the down position a portion of the actuating crank on the torque shaft of the gear engages the plunger of a separately mounted sequence valve. The opening of this sequence valve sends fluid to the top side of the down lock cylinder so that the down lock plunger is driven down into the lug provided on the strut of the nose wheel. All the sequence valves are made with lightly spring loaded balls so that the return fluid can easily unseat the balls without building up serious back pressure in the return system. After studying this mechanism it might seem to one who is unfamiliar with it that the operation would be jerky and slow. Actually the operation is exceedingly smooth and free from shock. It takes from three to four seconds to completely retract the nose wheel.

CONSAIR ATHLETIC ASSN.

By Bradshaw

THE newly organized Consair Athletic Association started their series of sponsored attractions in July using as a successful premier the midjet auto races, staged as "Consolidated Night" with sev-

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Kathleen Schneider and the winner: "Temperamental" Tommy Elliott

eral hundred of the plant race fans in attendance.

Fred Grossher, Hull Department, president of the organization, reports that a sizable profit from the ticket sales was deposited to the credit of the association, which was founded for the purpose of building a fund to render aid to athletes injured in the various plant sport activities.

Lovely Kathleen Schneider of the Purchasing Department presented the prize to the winner of the "Trophy Dash." All the events were exciting and furnished a very enjoyable evening for the customers.

The Association, through Ralph Smith of Personnel has carded some good attractions to be held in the next few weeks. Probably the next event will be a dance

at Mission Beach Ball Room with a class "A" orchestra rendering the music. Tickers will be sold by the members and a part of the proceeds will go into the coffers of the organization.

Plans are also under way for a city championship softball game between a *Consolidated* all star aggregation and the city league winners. The Coliseum Athletic Club will also be used for the staging of amateur boxing programs as soon as the season gets under way, sometime in September. Ice Skating and many other attractions are lined up for the future.

Present officers of the association include Fred Grossher, president; "Brad" Bradshaw, vice-president; and Dan Miller, secretary. They urge your support in putting across the programs as all money raised will be disbursed to benefit the injured athletes without profit to the organization heads.

Jim Kite's flying high these days, since the arrival of little Miss Mary Herrha Kite on August 2d. Miss Mary Hertha Kite put in her first appearance weighing just 7 pounds and 10 ounces.



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TANK HIGHLIGHTS

By *Hertbel Chappell*

A HEARTY welcome is extended to Witkowski, who is assisting E. Sprenger in the supervision of the Tank Department.

Al Ambrose, busy foreman of tank and drop hammer, manages to take care of both departments efficiently with the aid of his put-put, which enables him to dash from one department to the other. Beware, fellows, don't let our speed-demon run you down.

Many *Consolidators* enjoyed a barbecue dinner given by Mr. and Mrs. E. Backhaus. Among those present were Mr. and Mrs. Leo Bourdon, Mr. and Mrs. Jack Theuws, and yours truly and wife.

Our rivet boss on day shift, Mr. Harold Kent Parsons, Bud to you, is back from his vacation at Yellowstone. His report is, quote "There are no yellow stones at Yellowstone Park," unquote.

Matrimony has claimed several of our sworn bachelors during July and August. Milton Waite, Dick Lighthiger, Fred Morgan and Sid Riches. So far, the boys have not complained about indigestion, but time will tell.

Congratulations to Mr. and Mrs. Roy Culver, who are the proud parents of a

baby boy, James Robert Culver, who weighed in at 8 pounds 4 ounces. The happy event occurred August 8th.

Do you know that:

Woodbury is doing all right by himself? He is sporting a 1940 Convertible V8, and now he seems to be having trouble keeping the girls away.

Frank Serio is thinking of getting married. If you don't believe it, just take a look at our tall, dark, and handsome tennis player. His girl has come all the way from New Orleans just to see him, and now he is wondering whether he should send her back for another year or marry her now. It's all up to you, Frank!

George Price and Kenneth Prather were spotted on the causeway burning up the tracks in the midget auto racers. Careful, fellows, that's a very dangerous sport.

Dante Rossello is still badly in need of blinders. They tell me that he smacked into the back of another car while trying to drive and watch airplanes at the same time.

George Price has been spending most of his spare time trying to locate a job for his girl friend. He says he has to get her a job so they can begin the long walk toward matrimony.

Arnold Sprenger is having a hard time trying to figure out whether to eat his lunch in peace and then make the half mile dash to his clock, or to eat on the way. Try thumbing a ride on the motor scooters.

Our beloved Kentucky boy, Felix Mattingly, insulted one of Tia Juana's best Taco cooks by demanding a 'possum sandwich. Better go back to the hills, or else become civilized, Kentucky.

George Kummerow is spending most of his time picking himself out of people's yards, and off of the highway. We only hope he breaks that gallopin' motor cycle of his before it breaks him.

Jule Turoski spends every evening writing letters of love to his one and only.

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SPORT SPOTLIGHT*By Matt. Wiclopolski*

Due to the present upheaving diplomatic trends of the modern era, our softball championship schedule was cancelled for the time being. This is one time, when we can prove of what we are really made. Sacrificing our social and sport activities for our country's preparedness is a tribute of the finest and highest.

Here it is, the night-owl dope about the Tool Room pitcher, Speed, who was the threat to all batters. However, Selvaggi, was the man who pitched the strong Sheet Metal team to victory and an inevitable championship. But, the contending Hull team won over Vic Racko's Machine Shop boys to get into the play-off. And, so it was, Joe Drozo and the Hull gang won the championship over the supposedly great Sheet Metal team by a score of 13-12.

Captain Homer Shalor led a strong Consair tennis team against a tough team from the North American Aircraft. As a result, the *Consolidated* tennis champ, Shaylor, was upset by number one player, Baker. Our number three player, McKellan, also had an off day. As the last tennis ball of the afternoon hit the net, four young men shook hands to the plaudits of the onlookers. Two of the players were Ed Requa and Carl Sjoblom, who teamed up together and won the final match of the day with the final score of 4-2 for N. A.

On August 11, the Consair doubles tourney went under way. Discounting the lone upset of the first round, when McClannen and Witmer lost to Lockwood and Boyle, every other match came out as expected in the seedings.

Magnificent tennis was played by the following teams: Buggs-McKellan, Serio-Wheeler, Lockwood-Boyle, Requa-Shellbach, Browning-Syren, and the seeded Shaylor-Sjoblom combination. Those who won by default have yet to prove their tennis technique. September 1 was selected for the finals.

Anytime a husband gets the last word in a debate with his wife, this is usually it: "All right then, go ahead and buy it."

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THE CLEAN SWEEP

By G. "Broom" Browne

WHY is it we never see Herb Ezard on a scooter any more?

John Petit recently purchased a new pipe. On the way to work, John lit said pipe put the match in his mouth and threw the new pipe out the window. Was that the same night you came to work with your shirt on backwards, John?

Mr. and Mrs. John Preston proudly say, it's a baby girl, Elizabeth 7½ lbs. Congratulations from us one and all.

Gone but not forgotten is the "Production Beer Bust" at El Monte park. We noticed there was not much mention in the last issue of the *Consolidator* regarding our picnic. Following are a few high lights:

Ed Kellogg, high, on the limb of a tree . . . Lloyd Bender trying his best to bicycle . . . Tod Carter with a death grip on the beer barrel tap . . . Craig Clark and Joe Kramer out cold after a collision on the ball park . . . Did anyone notice Joe's shiner after the incident? Art Stone bringing enough lunch for an army . . . Harvey Muck doing a nice job of umpiring . . . The Wilson, Miller, Kramer trio. Ohhh! Mrs. Mussen keeping a watchful eye on Jim Tipton from Finished parts, missing a corner with his car on the way home and ending up in a corn field.

It seems Jim Mussen and Jim Wilkinson have very attractive names for each other. Jim to Wilkinson is "Musselhead", while Jim to Mussen is "Droop Snoot". It's a good thing these boys didn't compete in the name suggestion contest for the different model ships we are building.

Among the new faces in the Wing Dept. we see Russell and Kenny Dukette both boys are noted for their fine horsemanship. Russell recently took second place at the Monroe Field Rodeo. Yes, Daddy Dukette is here also and does not take a back seat by any means when it comes to riding.

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PLANT POLICE NOTES

By Frank Thomas

Chief Tompkins calls the 5:30 "traffic Blitz" a Dunkerque without water—John Ton licked the pneumonia bugs and is up to fighting weight again (240 lbs.)—William Graves, a staunch Democrat, followed in the footsteps of Wilkie during his vacation—William Bean is the Tomato Juice King (100 ounces a night)—Mussen and Fink should take heed on the straight-away; Chief Tompkins, Capt's. Shattuck, Roth, and Casey are Special City Police Officers and City tickets "stick" these days—Leo "the gate," heaviest man in the plant, is reducing, below 290 lbs. now.

HELP ELIMINATE THE PARKING LOT HOG—REPORT ALL VIOLATIONS TO PLANT POLICE AT NORTH GATE—Rodney Pease, Champion Pistol Shot, and the F. B. I. will soon instruct our personnel—Byers will let you in on his "ice worms"—The Smiths and the Browns double up on the second shift—Capt. Roth uses a camera to bring back those "big ones" that got away—Tom Bunch spent his vacation "Where the Turf meets the Surf"—Jim Marsh spent 3 going, 1 visiting and 3 coming back—Cross is keeping the New car dealers on edge—Bell will answer the bell at his new home at 68th and El Cajon—Johnson regrets giving up his vest for a uniform—Plant Police average 5 years' experience as Peace Officers—Mitchell has car trouble punching out from the "NE Gate"—Daggett would make a good stand-in for the Lieut. Gov. (makes lots of changes when the Captain is away)—Maddux wishes he could exercise some of his horses down here instead of his dogs—Charles Irving had a "timeclock" wedding—Aug. 7th—rang out 9 AM., streamlined to Los Angeles where he married Miss Dorothy Rees of Riverside and rang in August 9 at 10:30 P.M.



HEARD ABOUT THE HULL

By Bill Pettit

IT seems that now-a-days, a man has a tough time in this old world, unless he has a good sense of humor and a dash of wit. Maybe that's why Al "Paddy O'Day" Leonard, busy little Hull leadman, gets on so well. He has a sense of humor!

Going from the sub-conscious to the sublime, we find that Steve Gardner, general handy man in the PBY division, took oath to love, honor, and obey till death do him part, one August 9th. A good time and cigars were had by all!

Ah, and now at last the rivet gang in the Hull have acquired a man with enough good looks to uphold their tradition with the weaker sex. "Dutch" Klein's new riveter, Mike "Mitch" Williams, has established a record that almost belittles that of Homer Slack, sometimes called the "Casanova of the Hull", when he was in his prime. But you can relax girls, for it is strongly rumored that "Mitch" will soon be off to Oklahoma where he will embark on the quiet sea of matrimony.

Spending the week-end on a hunting trip, seems to be Glenn Hotchkiss' idea of a swell way to live. Spending a quiet week-end in the city seems to be our four-footed friend's idea of a good way to live. (Especially when Hotchkiss and his cronies are combing the woodland for them.)

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COUGHLIN'S COUGHINS

By T. J. Coughlin

The Engineer's annual Match Play qualifying round of golf was held on August 10 at the Rancho Santa Fe Golf Course and the pairings follows:

FIRST FLIGHT

Sheaham vs. McGuinness
Freel vs. Sebold
Ekrem vs. Robbins
Meer vs. Craig
R. Miller vs. Sutton
Layko vs. D. Waller
Purcell vs. Schwarz
Coughlin vs. Smith.

SECOND FLIGHT

Kelley vs. Bowling
Yater vs. Kany
Raymond vs. Luppke
Lutz vs. Ranahan
D. Miller vs. Redwine
Robinson vs. Faelsch
Edenfield vs. May
Cary vs. Des Plantes

THIRD FLIGHT

Green vs. Bauer
Kirk vs. Wahler
Moe vs. Golem
Watt vs. Weber
Bradley vs. Hinckley
Leigh vs. Ambrose
L. Nelson vs. Gerber
C. Nelson vs. Bender

FOURTH FLIGHT

Carlson vs. McCabe
Kellogg vs. C. Larsen
Lee vs. Whitaker
Eldred, Jr. vs. Growald
Seick vs. Walsh
Maunce vs. Rohn
Micklund vs. Cheynoweth
Marrow vs. Whitney
Bauer vs. Kirk

FIFTH FLIGHT

Beyer vs. Clement
Darnoy vs. Hess
A. W. Kellogg vs. Eldred, Sr.
Gorman vs. Halsey

The standings of the Engineering Bowling League as of August 13 is:

| | |
|---------------------|--------------------|
| 1. PBY-3 ... 47-21 | 5. PBY-5 ... 32-40 |
| 2. PB2Y-2 ... 45-23 | 6. B24-A ... 31-37 |
| 3. PBY-2 ... 37-31 | 7. B24 ... 30-42 |
| 4. PBY-1 ... 36-36 | 8. PBY-4 ... 24-48 |

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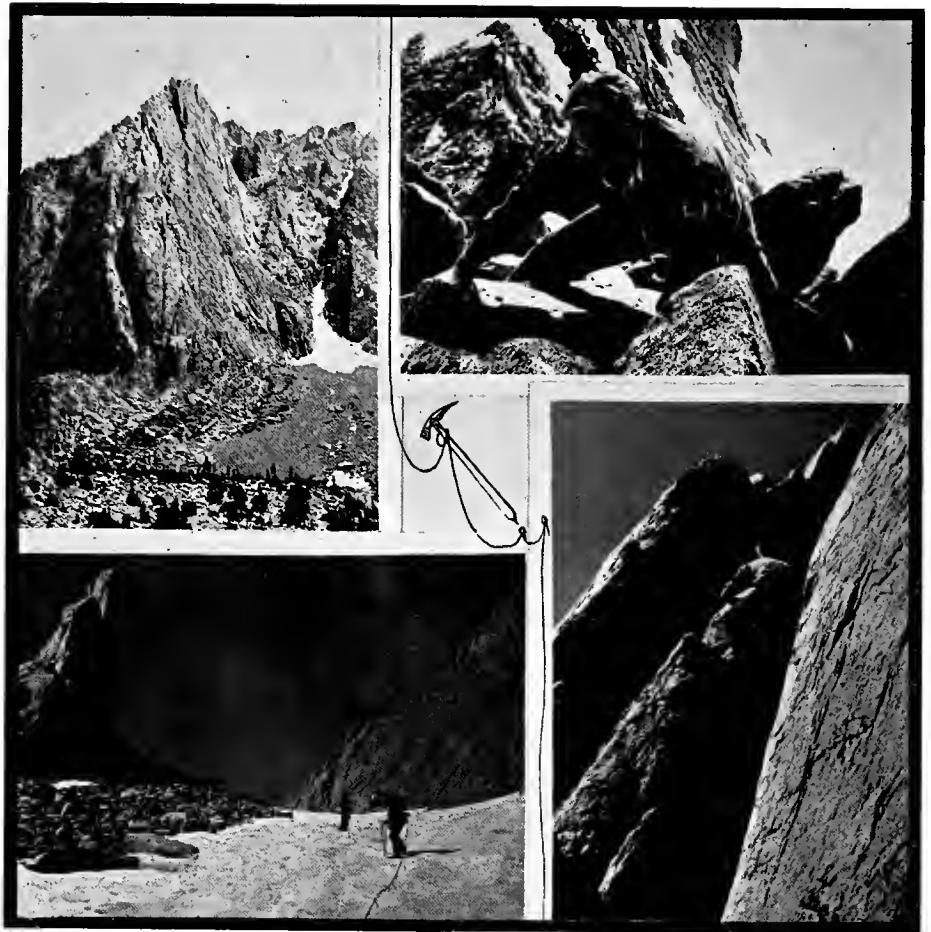
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This July fourth the Sierra Club Rock Climbing section made ascents of several peaks in the Palisades group of Central California. The photographs are representative of the scenery that surrounds California's principal glacier, and some of her higher peaks. On this trip Phil Faulconer, loft, climbed Temple Crag, 13,016 feet and Mount Sill, 14,150 feet.

On Labor Day Sierra Club members will

climb Mount Humphreys, another Sierra giant. If you would like to go on this trip, see Faulconer.

Engineering now harbors another fugitive from a mountain peak, Bill Leovy. Who else in the factory likes to pack and climb in the mountains? You only need a week-end to climb peaks ranging to 14,000 feet above sea level.

LOFT LINES

By T. J. Coughlin

For a long, long time we've had a celebrity; a famous personality; a man of nation-wide reputation working in our midst. A man whose modesty so equals in magnitude his accomplishments that until very recently we were entirely unaware of his fame. Of course, closely associated with him as we've been for the past year or more, we could not help but know of his outstanding ability as a bowler, golfer, marksman, ball player, hunter and all-

round athlete, but all that fades to insignificance in the light of our present knowledge of the man. My friends, with pleasure I introduce to you our own Irving Craig—who a few years ago attained such a reputation as a tree-sitter (remember the era of tree and flag-pole sitters? shipwreck Kelly, etc.) that even to this day the papers occasionally make reference to his thirty-day record. And to think that a man of such renown would hide his fame from his friends. Irving—will you say a few words to the boys?

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WING TIPS

By Carter

1. The house that Joe built has finally reached a conclusion. Sooo Joe invites all the boys to bring their "Dog Houses" out to spend the nite with him.

They say a "chuck key" is needed to open the front door of the Gliebe domicile.

2. Steve Powell's former loyalty to Buffalo was baked out of him at Santa Catalina. Steve says, "I am now a "native son." Maybe the "mere" maids had something to do with it.

3. The "Beer Barrel Polka" will no longer ring forth at the Kyle's Rendezvous

as they sell no beer after 2 a.m. and we now work until 4:30. The Lazari, Rasputin, Broome, and Toodles quartet will now sing sorrowfully and soulfully in the shower (alone).

4. "Sea biscuit" Guaranotta is still on the wrong horse, so he has taken up shoe repairing as a side line.

5. The Wing's two blind men (Umpires to you who haven't seen 'em in action) Kipple and Campbell, are looking for a Seeing Eye Dog.

6. J. Petit, the Thomas Lipton of Mission Bay, missed last place in last month's Yacht Derby by scant inches. A few more years says Johnny and "I'll be right up there among them."

7. Frank Heidenman the "Mayor of Crown Point" has finally found a "Sucker" and so Johnny Mello, the Spar Maestro, has built a lovely home in Crown Point where the fog and the water meet.

8. Bob Elo and "Kip the Kipper" Kipple can not seem to decide as to who eats no pork and who eats no fish on Friday. A suggestion from bored listeners to their continual yammering has suggested that they both turn "Yogi" and eat neither fish, flesh nor fowl.

9. "Matt" Barthel and "Limey" Bartlett of the Del Mar division of the Wing Department claim that they are not lost but just forgotten. It seems that the extreme North end of the new building is really a long way off from anywhere. It has been told that when Frank Heidenman got home the first morning after the ten hour shift, his wife wouldn't let him in the house. It seems she thought that it was something that couldn't find its way home from the grave yard before daylight.

10. Dear sweet Willie "Parson" Fleniken of the nite Machine Shop stock chase, is trying to raise a hirsute adornment. After two weeks of struggle and fertilizer, the aforementioned thing "Miked" close to .0001374 at the long-

est point. It looks like he will have to develop another technique if he expects to "ace" any more of the gals down at the Ice Skating rink.



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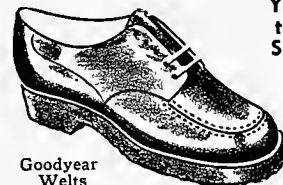
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WHAT A FAMILY !!!

Boy, Oh, BOY (and Girls, too) how this *Consolidated* Family has grown and is growing! Some time ago an appeal was put up on the bulletin boards for baby pictures and the response was instantaneous. Now that more than a year has elapsed, another appeal for pictures of the young members of *Consolidated* families, and this appeal scarcely was on the boards than it had to come down for other announcements, yet some 33 snapshots in the very limited time allowed, were turned in and we present with pride the junior faction of *Consolidated's* big family.

Due to the very short posting of the notice, and the short time allowed for the taking of new pictures, we will run another group next month to bring the album of young folks up to completion. So get out your cameras and take some snapshots and turn them in early. Prints must be snapshot size and glossy. Don't put it off!

1. Edward Eugene Hatz at 1 year and 7 mos. Son of Mr. and Mrs. Edward Hatz of wood shop.

2. David Kemper at the age of 3 years shows off what the well dressed cyclist is wearing this year. Bob Kemper of finish parts store room is his dad.

3. Rose Marie Quill, 6 month's daughter of Fred R. Quill of the wing department.

4. Miss Phylis Crosthwaite whose dad works in the experimental department. Miss Crosthwaite is just 11 (months).

5. Miss Helen Ann Carter, 18 months, daughter of Mr. and Mrs. T. F. Carter, who seems to be starting out early getting acquainted with the beach.

6. Shirley Joan Leisenring and Gary S., daughter and son of V. F. Leisenring of wood shop.

7. "Teddie" Borgens at 18 months, whose father is E. S. Borgens, orchestra director.

8. This young chap apparently will read Tarzan stories at a very early age. He is Harry Roy Lessing, Jr. Mr. Lessing, Sr., is in the hull dept.

9. Gerald (Jerry) Muzzy and his mother. "Jerry" is 9½ months old, and his dad works in the wing dept.

10. Carol Jean Apple, 2 years, daughter of Mr. and Mrs. Joe E. Apple.

11. Gary Joe Apple, son of Joe and Mrs. Apple. He is just 6 months old.

12. Carolyn Perry, 2 years old on the back step with a cake . . . no wonder the tickled look! Daughter of R. F. Perry of tool design.

13. Miss Mary Ann Backhaus, it appears, is completing a very military and jaunty salute. Miss Ann was born May 16th and is the daughter of E. Backhaus.

14. Baby Melba Kay Cooper at 11 weeks. Daughter of O. E. Cooper of the hull dept.

15. Calvin Rayborn, Jr., who was born Feb. 19th. Hull department.

16. Sherrilyn Ann Spear, who was, or will be one month old Aug. 6th. Daughter of Charles and Eileen Spear.

17. Here is a young fellow Mr. and Mrs. Eddie Generas of planning are proud of: Mr. David E. Generas. Mrs. Ruth Generas is holding young David.

18. This is "Ginger", or Laura Lee Bybee, 4 months old. The picture was taken on Easter Sunday. "Ginger" is the daughter of Mr. and Mrs. Ray Bybee of final assembly.

19. Master Walter Thorpe at age 16 mos.

20. Mary Ann (left) and Denny Rae (right) of the H. R. Gallant family. Mary Ann is 9 and Denny Rae 6.

21. This picture on the reverse side bears the inscription, "Skeets" Smith . . . age 16 mos. Mr. Fred Smith of hull is the dad.

22. "C. B." Powers. 1 year Remark on back says, "Presidential Timber" belonging to Mr. and Mrs. B. W. Powers. It looks like Roosevelt and Willkie will have some strong competition.

23. Master Gaylord Eastman Eckles. 21 months. Son of Dean Eckles of superstructures.

24. Arleen Marie McGuffin, 19 months old daughter of Ramond D. McGuffin.

25. This is Paul Otten's son Eric in Detroit. The note on the back of this says "Never again!" Apparently this is a reference to the "Detroit sand" all around.

26. Barbara Craig. Just one year old.

27. "Whazzat? One o' the *Consolidated* planes Dad works on?" Miss Catherine Ann Lessing who was born May 7th and who now takes an interest in her father's work. C. J. Lessing is in the hull department.

28. Mr. and Mrs. J. B. Smith's most recent arrival: Miss Jennette Sonja Smith at just 6 months.

29. Here are David (age 3) and Patricia Ann Smith (1½) son and daughter of Mr. and Mrs. J. B. Smith of wood shop.
30. Diane Marlene Wolter, daughter of Mr. and Mrs. W. Wolter. Age 14 months.
31. Miss Norma Deischl, age 3 years.
32. Joan Craig . . . 5 years old.
33. "Junior's morning bath" arranged for Al Polus, Jr. . . . probably by Mrs. A. Polus while Al Polus is at work in hulls.

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SHEET METAL NEWS

By H. B. Millman

WALT ALECKNER promises to never leave his badge at home again; he had a terrible time finding some one to identify him.

Tex Hatch is in the market for a bicycle, any condition, highest prices paid.

Tommy Wathen found out what made his legs ache . . . the doctor told him he was muscle bound.

Bill Sherriff is planning on exploring the Grand Canyon during his vacation.

Al Hunter says "don't miss Sally Rand's show at the San Francisco Fair."

Eddie Raymond really has the golf bug. He practices every spare minute he has.

Buzz Perry is sporting around in a new car, a late 1930 Model "A". He reports over 30 miles to the gallon of oil.

The sheet department lost one of its most capable men this month in Al Ballard. We wish him lots of luck and success in his new work.

We finally found out why Eddie Raymond has that hungry look of late—the Missus has been away. She is coming home shortly, Eddie reports.

The Sheet cutting softball team won the championship of the day shift by a score of 12 to 1, Hank Ondler getting more than his share of hits.

H. L. Davis, 8093, now has two dependents according to reports—his wife and himself.

Carl Mounts does things in a big way. He is building a beautiful home at Rolando Heights. He could use plenty of help putting in his lawn—a big job for a little man.

Dail Gowdy says he should have the rank of sergeant in the army . . . ask him.



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Champion "Wally" F. Miles of Anodic Department winning this year's county championship in weight lifting in the 123 pound class.

Here we present medals won by champion "Wally" F. Miles, Anodic Department, over a period of ten years. He was also awarded a 14,000 mile trip visiting every state in the Union and Canada, by the *Union and Tribune-Sun*.

1. County Junior Olympic Championship for the broad-jump. 2. County Junior Olympic Championship for chinning. 3. Most improved athlete in San Diego County for 1934. 4. Fifth place in the National Junior Olympics. 5. First place in the Huntington Beach 880 yard relay. 6. County championship for basketball toss. 7. First place for county running broad-jump. 8. Various Y. M. C. A. track meets won. 9. First place, 75 yard dash in the County Junior Olympics. 10. First place in the County Junior Olympics standing broad-jump. 11. Playground championship for all five events in the County Junior Olympics. 12. First place, De Molay 50 yard dash. 13. First place in all five events in County Junior Olympics. 14. First place in 75 yard dash in County Junior Olympics. 15. First place in Y. M. C. A. Track Meet in San Diego. 16. Southern California championship for all five events. 17. First place in De Molay running broad-jump. 18. County Championship for weight-lifting in 123 pound class. 19. First place in chinning in the County Junior Olympics. 20. First place for goal throw in the County Junior Olympics. 21. First place in De Molay 880 yard relay. 22. First place in chinning at the County Junior Olympics. 23. First place in the standing broad-jump at the County Junior Olympics. 24. First place in the 75 yard dash in the County Junior Olympics. 25. First place in the 75 yard dash at the National Junior Olympics. 26. First place in the 75 yard dash at the County Junior Olympics. 27. Second place in potato race, 88 pound class, in the Y. M. C. A. track meet. 28. Ribbon won in the broad-jump at the Coast League Dual Meet held in Santa Ana. 29. Third place in the target throw, Y. M. C. A. Track Meet. 30, 31, and 32. Ribbons for 220 yard relay and the 50 yard dash in the 17th Annual Stadium Meet in San Diego. 33. Ribbons won at the Coast League Dual Meet between San Diego and Long Beach. 34. First place in the broad-jump in the County Junior Olympics.

And if you really think the world owes you a living, go get it—don't send some other guy to collect.

One of our very closest friends has been married so long that every time he passes a mailbox he feels in all his pockets.

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A. J. Edwards says—

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why I sell 'em"

Mr. and Mrs. Joe Sylvester (Joe is the nite leadman with all the hair that hangs out in the PBY wing center section) held a gigantic three-way celebration Sunday, August fourth, in honor of the birth of a daughter, Carole, their first wedding anniversary and the opening of their new home at 4885 West Mountain View Dr.

P. S. Joe. What do you mean by the sixth son of a sixth son having a daughter? I guess you're not the man your forefathers were.—Jim Manderville.

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ANODIC ANECDOTES

By "Bert" Naseef

We all would like to know why Bob Warner made such a sudden change from a blonde to a brunette, and a song leader as well. Was it the voice, Bob?

We also welcome back Gonzales after his stay at the hospital; even though he won't admit it, we understand that his "sweetie" turned sour when she found him adding on weight so rapidly. Consequently, he went about reducing said avoirdupois too enthusiastically ending by being an unwilling guest at the hospital to recuperate. We all hope "sweetie" appreciates his efforts.

Robert Larceval.

Will the "owl" gang kindly put all left-over sandwiches in our re-run box? Our hungry pal "Duffy" will gladly oblige with thanks.

Ray McGuffin.

The other day all of us on the Anodic bench received the biggest laugh in weeks. It came about when Gonzales, the Anodic Adonis, noticed how lead man Bert Naseef relished his chewing tobacco. Bert looked so satisfied that Gonzales, after sampling a chew, ended up over the wash basin, choking and gasping, wondering how people can stand the darned stuff.

P. S.—Words could never describe the expression on Gonzales' face

Bob Warner.

A rumor has been going around the Anodic bench that Bob Larceval has been approached by movie scouts to play the part of Tonto in the new Lone Ranger picture soon to go into production. According to the report, he is just the type they have been looking for.

Gaston Gonzales.

And a "pome" by M. E. Williams:
Some are wise and some are wiser
A pretty good bunch in the Anodizer
Just give us the stuff, we'll put it through
In right good shape, I'll promise you.
Bert Naseef, it's my belief, hangs
Around like an Indian Chief.
Mac, Paul and Bob are on the job,
Doing their stuff without much grief;
And then hats off to Ted
He does pretty swell if he gets a good start.
Dave and Don and Harry, too,
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But you'll be lots wiser
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RECREATION NEWS

By R. C. Smith

First, let's congratulate the Cutting Department and the Hull Department for their stellar play in winning their respective leagues. The Cutting Department day shift champs are: Al Ballard, manager; Ed Birt, Hank Ondler, Joe Helm, Clyde Cowhick, Frank Eramo, John Galvas, Art Miller, Joe Accetura, Clyde Bashore, Les Cassie and L. M. Shirley. They played splendid ball all season, as their record shows. Ed Birt and Hank Ondler took care of the mound duties with Joe Helm on the receiving end. The heavy sticks were Al Ballard, Ed Birt, Hank Ondler and Joe Helm. The Hull Department night shift champs had nearly as good a record, losing only one or two games and they had to beat an all star aggregation in the Production Department to take the championship. This team consisted of: F. Furman, B. Leehman, E. Bertoncini, C. Calomia, Al Hernandez, F. Melzer, G. Hanson, E. Laird, T. Wolf, T. Marcella, H. Bartenfelder, M. Doerr, C. Walters, J. Drozd, F. Sullivan, F. Wills, and G. Hopman, assistant coach; H. McEwan, assistant coach, and G. Wire, head coach.

The plant championship was held Sunday, August 18, at Monroe Field, the winners received the gold softball trophies for being the best there is, and the runners-up received the silver softball trophy.

While we are on the subject of softball, there are two fellows who gave a lot of their time and energy to make this softball season the success it was. A hand for Howard Bell and Craig Clark. The players thank you for your efforts. Don't let us forget the forgotten men—those fellows that take all the abuse—the ump's: A. Brennan, E. Raymond, J. Leo, A. Leonard, H. Hauptman, H. Bell, H. Anderson, T. Butterfield, H. Muck, L. Airdhart, W. Shattuck, W. Liddle, Wire, Senn, Campbell, Kipple and Guarnotta. Thanks for your help in arbitrating the games. Your interest in the game and fairness was shown on many occasions. Thanks again for helping.

When this goes to press, we will have lost one of the most interested supporters of sports activities at the plant. It is with regret we say goodbye to Al Ballard, but we wish him luck and success in his new position.

We have a man by the name of Byers on the plant police who challenges any man in the plant or outside to a horse-shoe contest, and nearly guarantees to beat them. He held the Minnesota State Championship at the age of 15 years.

Bowling is getting under way with a bang! At the first meeting, officers were elected. Bill Gilchrist officiated until Tom (Father) Coughlin was elected president, Frank Meer, vice president; and Harvy Muck, secretary-treasurer. This group of officers are handling all bowling for the day shift. If anyone has any questions, get in touch with them.

The tennis doubles tournament is coming along in great style with Hudson and Vernon officiating. There were 44 men or 22 teams in this event. They played at North Park.

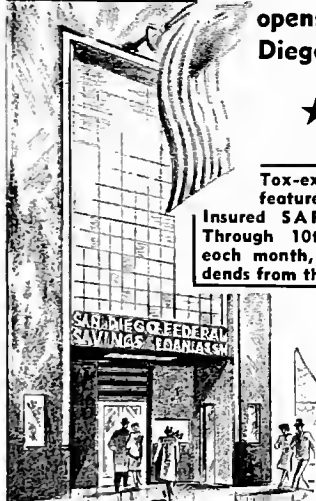
Consolidated Golf Team took on North American at Rancho Santa Fe August 18 in a contest that has been under fire for some time. We are going to have more of these inter-company matches in the near future. Doig in the Hull Department was the man that arranged this contest, and we thank him for his help.

Having trimmed us 4 matches to 2, in the first meeting, Consolidated played a return match with North American August 25 at Los Angeles.

Anything you do that the majority do not do is "queer"..... queer, isn't it?

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THINGS THAT COME OUT AT NIGHT

By Craig

TO the few who can remember the "old days", the new night shift is quite a sight. In just a few months this shift has grown from practically a "one man shop" to a force of nearly 3000 men. By "one man shop" we mean Mr. R. Emrick, who not so long ago was not only Night Superintendent, but also, mechanic, plater, painter, inspector and dispatcher.

During the "great migration" of the past couple of weeks, the yard was a beehive of activity. Jimmy Mussen, like Moses, led his Final Assembly crew into the "promised land" of the new building. The parade of PBY's, B-24 and PB2Y-2's across the yard was quite a sight. Jim led the exodus, but unlike Moses, he lived to see the new home.

Speaking of moving, it is certainly hard on the dispatching group these days. It is practically impossible to keep track of a department from day to day, to say nothing of a few small parts. We hear from good authority that the Tank Dept. has been lost for days.

Geo. Wire and "Army" Armstrong have returned from their vacations and really have things humming. George went

to Catalina and had a swell time. His only regret was that he did not have time to go boar hunting. "Army" spent his week in Yosemite and got a real rest while figuring out which center section was PBY-5 and which 28-5.

The nightly "Round-table" discussions in the Production office are informative and interesting. Anyone having a spare lunch hour should drop in. Geo. Moore discusses the coming presidential campaign; "Colonel" Jerry Allen expounds the merits of compulsory service and Tod Carter and Ken Phillips are preparing talks on "My Career in the Theatre."

Henry Dooer, Metal Bench, started off the new ten-hour shift in great style. Henry came home the first morning at 5 a.m., got a couple of hours sleep and then got up to clean the front room Venetian blinds. In pulling the slats out, Henry became a little too vigorous and pulled them right thru the glass front door. By the time the glass and slats had been replaced it was time to go to work and Henry is still trying to catch up on that sleep.

Jack Bryant, Hull, is still trying to make C. Farrell believe that he won on that bet. The next time "Doc" Walker removes a sliver for H. Roese, he is going to give him an anaesthetic. Then it won't hurt.

We are told that being small and agile, Ernie Johnson, Navy Inspector, is now the expert on the gas tanks.

R. Christofferson, dispatcher, is in for some very special consideration from the Inspection. It happened that Mr. and Mrs. John Kratovil became the parents of a baby girl August 2. Mrs. Kratovil needed some blood; so of the many who offered, "Chris" was chosen to give the blood. Mrs. Kratovil is doing nicely and Mr. Kratovil is a proud and happy Dad.

The paint shop men will miss C. Galehouse, who left for a position at North Island. Bill Wold is quite a sleight of hand artist, but won't get an opportunity to show us after work now. T. Guarnotta has his arm out of the sling now that softball season is over. We think it was a gag to protect him when he missed one. It really was warm during that recent hot spell. So warm, that R. Emrick finally had to peel off his coat. Believe us, that is really hot. Roger Heinrich and G. Roth brought home some of the big ones that didn't get away, from Lake Hanson. They enjoyed the trip more than G. Wire did his last one. C. Pjerrou, Drop Hammer, finally got up the courage to say, "I do." Now he is learning to say, "Yes ma'am." Congratulations, Mr. and Mrs. Pjerrou.

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MACHINE OIL

By Al Pfeiffer

Stork delivery service has also been working overtime. Latest deliveries include:

At the Don Benson's it's a delightful bundle of femininity named Wanda Lee.

Wenthe progeny is a boy. Name? James William.

Taking top honors in the eight pound class, Ray Frindt proudly presents Richard Albert.

It's funny what names will do. Martin Montgomery certainly brings a deep scarlet to Van Dyke's face. "Rock" Ryerse is more formally known as Lyle Coe. "Jack" Palmer's real name is Ralph but he hears it so seldom that he fails to answer it.

By the time this reaches print, Valente that peer of Italian chefs will have been married. The charming lady finally arrived from Memphis and they were Yuma bound. Best of luck Manlio!

That tall handsome young fellow who handles the blue print situation so well in the machine shop on Days is Doctor Overmiller. Or at least he is well on his way to becoming a promising medico, expects to return to the Univ. of Nebraska very shortly.

Art Scodes' new monnicker is "Angel". He himself chose the name after seeing a picture of a wrestler with the handle. The fact that a pretty girl accompanied the grunt and groan artist had nothing to do with the selection however.

Nickel nursing has become a favorite pastime since the installation of that "Coke" Machine. It's a question now of the machine keeping the machinists running. Nothing like a cool bracer for that 2 o'clock let-down.

The ink had hardly dried on Erwin Buschbaum's transfer to Hull when he found himself allergic to dural poisoning or was it the night air in the yard? However we're glad to have him back again in the machine shop.

Numbered among Planning's contributions to the machine shop is Eddie Owens. Formerly with the 'round the country circuit of Major Bowes, Ed is quite an entertainer. He assures that his last exhibition at the Paris Inn was entirely unrehearsed.

Joe Hurwitz, time keeper, is a good natured fellow but the mere mention of those daily letters from Los Angeles upsets him very easily. We wonder if it has anything to do with Bear Mountain episode and capsizing a sail boat.

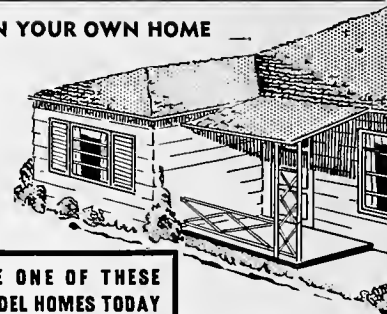
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TUBE BENDING

By Hart

IF anyone wants to know a short cut to Yosemite Valley, just ask Eddie Rasp. Instead of the usual 468 miles, he *only* traveled 518.

It must be getting near the bowling season again 'cause we hear Bert and Norman Freakley, the stars of the tube bending department, talking with Ham Molleuer, our anchor man, about it.

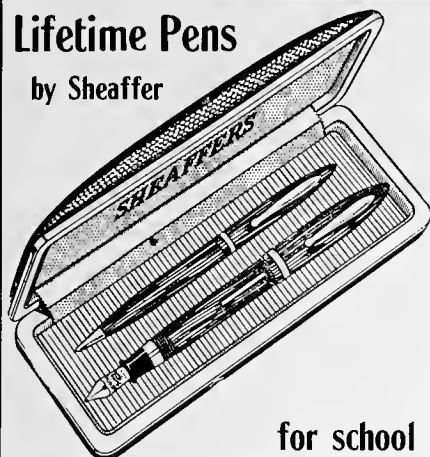
Eldon Lewellen, one of the newer members of the tube bending department is quite well known as a cat-skinner, in fact is supposed to be one of the best, but we hear that the other day he tried riding some kid's bicycle and found himself quite unable to handle the situation, even to the extent of landing in the middle of the street.

Bert Freakley's daughter suggests that Eldon come up the hill and she will teach him how to go around corners on bicycles. If not, she knows where there is a good tricycle for sale cheap.

Gerald Cooper is expecting his wife and children home from a two months vacation to the east coast. Gerry said it is just like getting out of the army on retirement and then being called back to duty again.

Lifetime Pens

by Sheaffer



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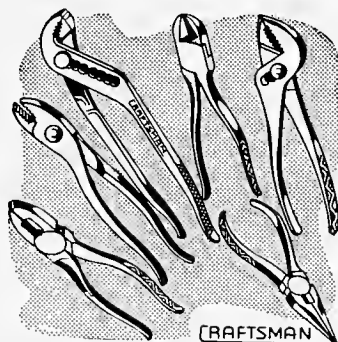
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OCTOBER • 1940

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CONSOLIDATOR

Volume 5

October, 1940

Number 10

NOTICE TO NEW EMPLOYEES

Consolidated Aircraft operates a tool store in conjunction with the factory. Employees may purchase tools on time payments, and have the amount deducted from their pay every week. All leading makes of tools are carried in stock, and special items not regularly carried will be obtained. These tools are stocked for the convenience of the employees. The following rules apply to the purchase of tools from the tool store:

1. New employees' accounts restricted to \$5.00 for the duration of the first week of employment.
 2. No individual account to exceed \$25.00.
 3. All accounts must be paid within five weeks.
 4. Minimum weekly payment is one dollar.
 5. Permission to leave the department and go to the tool stores must be authorized by your department foreman.
- Remember—in most cases, you can tell the mechanic by the tools he owns.
- The tool store is located in two places in the plant:
- No. 1 store crib is located in the new final assembly building in the southeast corner near the A. N. Stores.
- No. 2 store crib is in the machine shop just north of the inspection crib in the center of the machine shop.

CONGRATULATIONS!

After having had the pleasure of announcing thru these columns the weddings of many a fellow *Consolidator*, Ye Editor takes pleasure in announcing his own wedding which took place at the home of his fiancée's aunt on September 29th. Miss Virginia L. Morrison was the bride's name. A trip to Grand Canyon, Bryce and points thereabouts is in progress as you read this. Should the editor congratulate himself? He most certainly should!

Signed: Norman V. Davidson.

CONGRATULATIONS...

Born to Major and Mrs. Reuben H. Fleet, on August 28th, Miss Nancy Fleet at Mercy Hospital. All reported doing nicely.

SELF HELP . . .

This is an earnest request for co-operation from you . . . for your own benefit:

Be sure to notify the Personnel office of any change in address or phone number immediately, and advise the Welfare office when you are out because of illness or illness in your family. Changes in address or phone number can be made by notifying the clerk in your department. Getting your address and phone numbers corrected, and notifying the office of your illness or accident may mean more to you in cases of emergency than you can realize. Twenty per cent of the calls we make to inquire as to absence from work, result in going to wrong addresses. One job of the Welfare Department is to give aid wherever possible, but this can only be done when the employee's address is up to date. Employees quite often have free aid coming to them, and their checks if paid while off from work, can be delivered . . . provided the employee's address is correct so that he can be reached. If you have moved, or changed your telephone number recently, make a note of this change, give it to the clerk in your department or Bill Gilchrist, Personnel department.

A new office—that is what the "Consolidator" has! On August 20 the "Consolidator" moved bag and baggage into one of the offices formerly occupied by the Navy Inspection. Bigger and better "Consolidators" will pour forth from the new and larger quarters.

The kind expressions of sympathy received at the recent loss of Mrs. Sheahan are deeply appreciated and gratefully acknowledged.

B. W. Sheahan and Family.

THANKS A MILLION . . .

This month we had turned in more news than ever before . . . and by many new names . . . thanks a million! This is what makes the magazine really yours! We had to cut a little here and there, because it's not practical to add pages indiscriminately and because printed matter in type just won't shrink any! But shoot in your news each month. Be sure to condense as much as possible but don't leave out the names of the fellows (and gals!) Just don't feel discouraged if you don't click the first time you try. There were many trials before the first airplane got into the air.

PLANT BADGES MAY BE IDENTIFIED BY THE FOLLOWING:

| | |
|---|-------|
| Officers and Executives | |
| Stenographers | |
| Telephone Opers. & Consolidator | |
| Photographers | PH |
| Accounting | "A" |
| Timekeepers | TK |
| Mail Boys | |
| Test & Service | T & S |
| Personnel—First Aid | PE |
| Plant Police—Salary | |
| Janitors—Hourly | JA |
| Purchasing—Salary | P |
| Purchasing—Hourly | P |
| Engineering Executives | "E" |
| Engineering—Stenographers | "E" |
| Engineering—Designers & Drftsmn. | "E" |
| Engineering—Blue Print Clerks | E-BP |
| Maintenance—Salary | MT |
| Maintenance—Hourly | MT |
| Factory Supr. & Clerks | FS |
| Inspection & Chemist—Salary | "I" |
| Inspection—Hourly | "I" |
| Production—Salary | PR |
| Production—Hourly | PR |
| Drop Hammer—Foreman & Clerks | DH |
| Drop Hammer—Drop Hammer Div. | DH |
| Drop Hammer—Plaster Pattern Div. | DH |
| Drop Hammer—Foundry | DH |
| Tool Design—Salary | TD |
| Tool Design—Hourly | TD |
| Tool Room (Crib) | TR |
| Machine Shop | MS |
| Wood | WS |
| Sheet Metal | SM |
| Tank | "T" |
| Metal Bench | MB |
| Wing | "W" |
| Hull | "H" |
| Paint | PA |
| Final Assembly | FA |
| Tubing | TB |
| Heat Treat & Spot Welding | HT |
| Welding | WD |
| Experimental | "X" |

FACTS ABOUT THE FEMMES

Louise Girodon is very disappointed. After a recent tonsillectomy she didn't lose a pound.

For a solid hour of entertainment (well, almost an hour) get Mary Eleanor Meredith to give you her reasons why a fire engine is red.

When the girls lined up for a group picture in the patio last month, half of them had never met the other half—which indicates how fast our plant is growing.

If Mary Jane Upton trips over just one more curb, a collection will be started to buy her a wheel chair.

I knew it—Evelyn Kells reports another fender smashed.

We bid farewell to Bradshaw, the ole' news hound, who is leaving *Consolidated* for the insurance business. Brad is going in for insurance in a big way, as he will handle annuities for Investors' Syndicate, automobile policies for Farmer Automobile Insurance. Lots of luck, Brad!

Memo to the gals in the employment office: Where's that news you promised to send in?

At this writing, Ann Howard, Mamie Turpening and Mary Nugent are on their

vacations. Ann is spending a month with her family in Buffalo, Mamie is taking in the San Francisco Fair, and Mary is sight-seeing at Catalina.

A deaf old lady went to live near one of the naval ports. Shortly afterwards a battleship fired a salute of ten guns. The old lady, who lived alone, got out of her chair, smoothed down her dress, patted her hair, and said sweetly, "Come in."

"Consolidettes" Bowling Team

By Lois and Grace

That old "news-hawk" Bradshaw, took great pleasure in "heckling" Production Girls' Bowling Team, the "*Consolidettes*." However, the girls took it in their stride and were not the least perturbed. No, nothing can disturb our self-confidence since Maxine "Tuffy" Bennett scored that super-dynamic game of 215.

If we haven't scared you off, boys, we would like to challenge five alleged "bowlers" to a game ANYTIME. Now if we can only keep Evelyn Parkins from scoring a strike on the pin boy instead of the pins; have a curved alley for Grace; have the pins set up in the gutter for Lois, and Maxine doesn't sprain her ankle, we promise you stiff competition (providing you let us decide *our* handicap.)

CONFIDENTIALLY

By Jim Jackson

Graduate of Dartmouth, major in English, profound in knowledge of Chinese—that's "Hashi" Eldredge, Clerk in Hull. Best way to find this leadman—"Have you heard Roes?" Ex-bandman, Al Hinz, Clerk (another one?) in Hull, commandeers a '40 Mercury around our town, and does pretty well with the feminine world too. Al is terrific on the "sax", has had his own band, and at one time played with Ken Baker. Confidentially he's our idea of "something" for the Company band. Orin Bladow has taking ways—a pretty young wife and a new car, both this month, and he traveled two thousand miles to get his wife (also the new car) and if this writer knew as lovely a damsel even farther away he'd do the same thing. Congrats, Orin and Mrs.

Mission Hills Beauty and Barber Shop



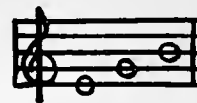
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MUSIC NOTES



Place a large red circle around Labor Day, September 2, 1940 on your calendar of important days in the life of *Consolidated*, since besides the dedication, both the *Consolidated* Orchestra and *Consolidated* Glee Club made their debut on that day. Yessir, they covered themselves with glory—everyone in the large audience attending was pleasantly surprised. The orchestra, consisting of 36 men, really did a masterful job of providing over an hour's entertainment while the Glee Club did their share by presenting several numbers.

High spot in the musical program: "Wake Up, America," a challenging martial type song, was presented for the first time by both Orchestra and Glee Club. To top it off, the audience was so thrilled with it that they heartily joined in another chorus. ("Wake Up, America" was written by two well-known members of the "*Consair* Family," the lyrics being furnished by Mrs. Reuben H. Fleet while the music was written by Edward G. Borgens.)

The Glee Club misses the former director, Richard Holtzclaw, but wishes him every success this season. Mr. Holtzclaw left for the east recently to join the San Carlos Opera Company as Baritone lead.

When Major R. H. Fleet saw the Orchestra all dressed up in its new gorgeous array of music stands, etc., he rightfully exclaimed, "Now I know we can build anything!" All credit must go to the fine cooperation and creative genius of Joe Famme, the Wood Mill and Paint shop.

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LOST IN FINISHED PARTS

By Kel Aiken

IT'S a good thing the monthly Stockroom picnic is usually held a couple of days before the copy deadline. This month's picnic on Sunday, September 15, wound up at Pine Valley, and what a wind-up—must have been twelve or fourteen car loads. I noticed Paul Wiley taking a hint from last month's column, traded that old Pushmobile for a car of a later vintage. It's a nice car, has a slight leak in the radiator, though. He should call it "Aqueduct," the way water runs through it. Ralph Jacobs and Frankie Robbins took time off Friday afternoon in order to get an early start, making the Valley shortly after the rest. Woodie Hill came out not prepared for a picnic, but more for a full course holiday dinner. Woodie will have to be considered a rival of John Parker's (conspicuous by his absence) for the outstanding epicurean of the storeroom. Bobby Niebrugge, Chet's boy, led pappy a merry chase over field and stream, then 'round and 'round the dance floor, until Chet was in an utter state of exhaustion, but Bobby kept up his original pace—youth is a wonderful thing; too bad it has to be wasted on children. Dancing brings to mind a picture of that terpsichorean genius, J. C. Ruzich, shagging, rug-cutting and jiving all over the arena. Les Stockton and Paul Wiley did most of their dancing flat on their backs in the middle of the floor, and the floor wasn't slippery either. Also it was a good thing that Jim Burnham's wife is a bit shorter than he, or else her eyes would long ago have been burned out while dancing by that perpetual cigar of Jim's.

He smoked it all day and it was still four and a half inches long when we left.

Tex Merry, Harold Tipton and Art McLaren in order to prove their heritage from the Lone Star State, rode their horses bareback (some of the rest took their shirts off too). Golf Player John Forsman must have had a good time; he brought his bags to work Monday—in his trousers and under his eyes.

Well, that about covers the minor events and observations at the picnic. Which brings us up to the Storeroom No. 1 vs. No. 2 ballgame. Ah! the ballgame—what a showing of athletic prowess, of masculine fortitude—of cheap, chiseling sportsmanship. Do not think because I work at No. 2 Stockroom that any of the following remarks are prejudiced—far be it from me. But that No. 1 bunch are certainly chiselers of the old school, first water, way back, etc. No. 1 won the game 4-3, but not without foul and subversive means. It is probably only coincidental that both umpires, Tex Merry and Howard Teaby, were No. 1 men. I have seen some pitches right down the middle called balls, but never before have I heard wild pitches called strikes. But then I doubt if Ump Merry could tell whether it was a baseball or the Goodyear Blimp. Paul Wiley resorted to vulgar and uncouth methods, his trip around the diamond leaving a trail of maimed and broken base defenders. I myself have two broken ribs to show for his homeplate "slide" (a running broad-jump 15 feet from the plate.) I hereby wish to enter a challenge to these advocates of "Skunk Hollow" tactics to a game played cleanly and fairly on the field of good sportsmanship.

No. 2 Storeroom (the Jewel-Box) had its picture taken a few days ago. There was the inevitable dispatcher trying to make an impression. With everything all cleared away to make a good showing, just as the photographer was all ready to set off the flash bulbs and snap the shutter, out pops Jimmy Holstein with his arms loaded, beaming all over with smiles just like he had found some long lost parts (just like there aren't any).



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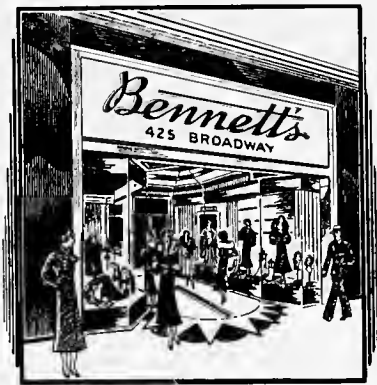
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"THE WHAT AND THE WHY OF FHA"

By Wm. O. Harris
Production Manager,
Southern California District,
Federal Housing Administration.

TO ENCOURAGE improvement in housing standards and conditions, to create a sound mortgage market, and to provide a system of mutual mortgage insurance was the responsibility placed on the Federal Housing Administration when it was created through the passage of the National Housing Act, June 27, 1934.

To carry out this mandate, the Federal Housing Administration does not lend money and it does not build homes. It is an insurance agency which protects banks, building and loan associations, life insurance companies, and other lending institutions against loss on loans made to individuals or companies for the construction or purchase of residential structures or the repair or improvement of homes and other types of buildings. Through the mechanism of loan insurance, the FHA is able to exert an important influence on the whole building, financing, and real estate structure.

Following is a brief resume of each of the main provisions of the National

Housing Act as it refers to small home properties:

(1) **LONG-TERM MORTGAGE LOANS**—the insurance features of the FHA enable lending institutions to offer long-term mortgage loans up to \$16,000 at low rates and on liberal terms for the construction and re-financing of homes.

(2) **MODERNIZATION LOANS**—enable lending institutions to offer insured loans up to \$2,500 for the purpose of repairing and improving property and installation of certain types of permanent equipment and to construct various types of buildings.

Long-Term Mortgage Loans

The FHA-Insured Mortgage Loans provide definite advantages and safeguards to the borrower who finances his home the FHA way.

The very elements which make the proposed loan a "good risk" to the lender and to the Federal Housing Administration are the same elements which assure the borrower of a sound investment, good construction, livability and comfort in his new home.

The FHA system, which determines that the property is good security for an FHA-Insured Mortgage Loan, automatically acts as a protection to the borrower. Home plans must meet definite property standards and requirements before FHA insurance is allowed. FHA appraisers visit the site of the proposed home, or, if it is already completed, visit the home itself. All possible factors that might affect its value or usefulness are given the most careful attention.

When a new home is being constructed, periodic checks are made and the entire project is subject to FHA inspections.

This protection is a safeguard to both the borrower's investment and his physical comfort. It assures him a home that is suitably designed and structurally sound, built of good materials, protected against shoddy workmanship, and checked for compliance with plans and specifications.

The FHA offers two plans of long-term financing which Mr. Harris will discuss in the November issue of the *Consolidator*.



DRIFTING THRU DRAFTING

By R. R. Hoover

SOON after our last issue went to press, Petrus Carlson and Joe Famme returned from their much discussed fishing trip into the Sierras. Our suspicions became aroused by the comparative quiet with which these gents resumed the routine of work after their return. Veiled questions and a bit of snooping revealed that our two intrepid adventurers simply



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hadn't had much fishing to talk about. Their trip had been spoiled by the carelessness of some nimrod who just didn't bother to see that his cigarette was out before walking on to the next likely trout pool. Fire accepted this invitation and Pete and Joe joined the ensuing battle against the ruthless destruction of a forest fire.

The fire was extinguished in two days. The boys have recovered from the ordeal (and they have our utmost respect and sympathy): but several hundred acres of timber are blackened and miles of trout stream polluted to the detriment of several seasons of fishing. Game has been killed and forage destroyed for a year. All because some dumb bunny didn't think! Now a lot of fellows are planning hunting trips into the forests and a lot of them will smoke in spite of warnings to the contrary, so for the love of Pete be careful and see that each match and cigarette is *out* before you forget it!!

Considerable interest has been inspired by the ingenious contrivance which bid fair to receive the soubriquet of "Wheatley's Folly" but which has since gained respect as a neatly motorized bicycle. Many are the envious glances which follow Bill on his frequent trips about the yards. Henry Mandolf has already suggested the addition of a generator driven from the rear wheel to recharge the battery and someone else has suggested two-way radio and the installation of a ventilating fan! But we all agree that it beats pedaling any day and must admit that Bill has something there!

Even golf has its funny side as witnesses to a scene at Rancho Santa Fe several Sundays ago will readily agree. Robbins and Gerber, the two inseparables, took a fling at a golf ball slot machine just for fun. Gerber gave his quarter a whirl and won absolutely nothing. After dishing out a bit of razz in Gerber's direction, Robbins inserted his quarter and was suddenly deluged with forty-three (43) beautiful six-bit balls! Gerber was so flabbergasted that he had no comeback even after Robbins was forced to return twenty-three of the balls to the management who insisted that the machine was in error and should have paid out only twenty balls. Fate certainly planted her little hobnailed slipper in the middle of whatever wise crack Gerber had ready for Robbins!

McKinney has been preparing a rather complicated monograph for alloy sheets and its complicated arrangement of figures has inspired quite a bit of comment from his cohorts. Some of the gang insists it must surely contain information helpful

to hubby's computation of the wife's stocking budget, determination of tides, computation of income tax, et al. But Wilbur is bearing it all with a grin.

Bob Lutz has everybody guessing why he is wearing dark glasses with blinders on the side just like the nearly forgotten milkman's horse. Some think he's hiding a shiner, still others wonder if he has had an offer from Hollywood and is getting into the swing of things. Readers are requested to keep an eye on Bob so we can be informed as to what's going on.

Observers have noted that C. E. Edenfield of Weights Group has been making repeated trips to and from the Paint De-

partment with a large sample of painted sheet. Each time he returns to Sid Avery's fold we expect to see that piece of sheet metal hung around his neck, sandwich man fashion, and boldly displaying the name Willkie.

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PRODUCTION MINUTES

By "Brad" Bradshaw

WE can visualize a sigh of relief from "Ye Editor" Davidson as his keen optics go through the strain of censoring these pages, for after filling many a wastebasket with my puny efforts at giving you a "belly laugh" now and then, this issue will terminate my struggle toward literary greatness. But into no better hands could the job go than genial Joe Maloney, the Sultan of "Blue Print Harem", and with Joe being the "leadman" of all that female crew, just think of the "spicy stories" he should make them unravel. Of course, if they don't want a raise, they can keep quiet. As for myself (here's hoping I get this in as I know Dave will stick me for an ad anyway), I am going into that well known profession of "The man that comes around," in the business of selling "annuities" and Automobile and Home Insurance. "Come up and see me sometime." I am told it's a "cold world" out there but if I can take the cover from Louie "Duflingess" Purcell's desk, I can boil out several bowls of soup that have spilled there from his thermos bottle, to beat off the "wolf" for a while.

After gazing over the contributions of literary genius in the last *Consolidator* by the crop of "cubs", I was amazed at my findings. Kel Aiken makes Professor Quiz sound illiterate with those 39 cent words of his; Bob Hoover, taking over for Jeff Bouley is spreading a column that is worth plenty of "hush money" for the Engineer who is visiting a sick friend. Then there is Drowne and his mysterious "X" stuff, Bud Dale sho "smears" it on for Paint Shop; Bill Fink "draws" plenty of "jokers" for Draw Bench; Maguire puts the "design" on the Tooling personnel; Chappell tells about the men of Tank whether "tanked" or otherwise. Matt Wielopolski, the demon Sport Spotlihter; and Pettitt, Thomas, Carter, Browne, Coughlin, Millman, Naseef, Smith, Pfeiffer, Hart and all the others which makes me feel the old *Consolidator* will go right along without the efforts of Larry Boeing and myself.

I have some of the fellows pretty worried over this last issue by being protected with my absence, but really everyone behaved very nicely during the month. Of course, there was that little item of Owen Gandee diving into the orchestra pit and coming up with a collar made of sections of a trumpet. Probably better after all to blow your own horn. Tom "Nubbin" Pitts broke all existing records of the "Pony Express" when his horse got out of control and lit out over two miles of canyon for the barn. With reins loose, Tom's legs wrapped around his neck, ears floppin' in the breeze, and a death grip on the saddle, yelling "whoa, darn you, whoa," the nag ended the journey in the stall where Tom was untangled and later went out for another try. Tom had the best of the deal as it's poor "horse sense"

to run that far with such a load of "beef." Gale Medlicott is having his worries, "Uncle Sam" wants him to "join up" and be an ensign, but that would leave the La Jolla Miss at the mercy of the air force, and Gale has been reading about the damages those fellows can do to a home. Lou Miller, after turning in an "average" of 44 center sections, took a trip to Boulder Dam so as to get back some "free meals" off relatives and friends who visited him. But after figuring his gas bill, Lou decided he lost money. He also claims that people are much better friends if they are eating at your home. Bert Gimber issued an order reducing "Cut as required" from 52 to 32 but is planning on being X-rayed soon. Ted Anderson is looking mighty happy these days and is mumbling something about the "future champion of Ocean Beach." We should mention some new faces on our Production roster. Edith Eckenrode, new typist. I couldn't get the address and telephone number, slipping I guess; James "The Ferrett" McCachern, the lad who does an F.B.I. job of hunting up those lost process cards. He is from Dixie and uses a "carpet bag" for a lunch kit; Earl LeClair, who has been with us quite a spell but we thought he was drawing plans for Perry Ogden's "Celery ranch"; Fred Beuhler, Jr., and Brenden Davin who are handling the "Stops and Cancels", with Buehler trying to put the "stop" on guys that try to get friendly with Edith. From a none too reliable source, we learn that the Rangers are looking for Delson "Fena" Drake and Fred Brady for the "mess" they made of several yards of beautiful mountain scenery over the holidays. Owen "Greaseball" Stockton still insists that the girl he had

(Continued on page 14)



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CONSOLIDATED CONSOLIDATES AGAIN

ALL physical assets, as well as the name and good will of Hall-Aluminum Aircraft Corporation of Bristol, Penn., have been merged through purchase with *Consolidated Aircraft Corporation*. Thus tersely may be stated the fact that Hall-Aluminum Corporation is now a part of *Consolidated Aircraft Corporation*.

Some 32 key men of this eastern airplane plant have joined our organization, and all patent rights, material and equipment of the former company have been acquired through the purchase.

Hall-Aluminum Aircraft Corporation had its beginning in Charles Ward Hall, Inc., in 1916. Since that time and until the formation of Hall-Aluminum Aircraft Corporation, Inc., in 1927, Charles Ward Hall, President and sole stockholder had been continuously engaged in research in the use of aluminum alloys in connection with the design and construction of aircraft. Mr. Hall applied for and was granted numerous basic patents.

Along with the airplanes built, there were developed a complete line of draw bench shapes and other parts of strong aluminum alloys which were perfected and continuously produced and sold since 1923 to various airplane manufacturers.

In 1927 Hall-Aluminum Aircraft Corp. was incorporated through the purchase from the late Charles Ward Hall of all assets belonging to Charles Ward Hall, Inc. The new company until its acquisition by *Consolidated Aircraft Corp.* has been engaged in the design and manufacture of aircraft, particularly flying boats and seaplanes, aircraft parts and sections, and in overhaul and repair work.

Clinging rather tenaciously to the naval side of aviation construction Hall-Aluminum Aircraft has produced principally seaplanes and flying boats, pioneering in many phases of the work and particularly in all-metal construction. In 1920 metal wings were constructed for HS-3 flying boats. In 1924, there were built in conjunction with the Curtiss Aeroplane and Motor Co., two U. S. Navy F4C-1 fighter airplanes . . . the first all-metal aircraft used by the U. S. Navy. Other airplanes built included the C-333, XFH-1, XPH-1, PH-1s, PH-2s, PH-3s and XP2H-1, a four-engined long range patrol or bomber boat with four liquid cooled engines. In 1933 it made the longest non-stop flight up to that time by the Navy, from Norfolk, Va., to Coco Solo in the Canal Zone.

The company also made the twin float



Archibald M. Hall, President and Director of the Hall-Aluminum Aircraft Corporation, now merged with *Consolidated Aircraft Corporation*, is the son of Charles Ward Hall who founded Charles Ward Hall, Inc., the pioneering aluminum alloy aircraft manufacturing company. A. M. Hall was born in New York in 1899, and is a Mechanical Engineering graduate of Cornell University, 1924. He spent a year on the inspection side of the Navy's F4C-1 fighters, and was with the Union Carbide and Carbon Corp. as an engineer. From 1927 thru 1936 he was Vice-President of Hall Aluminum Aircraft Corp. and from 1936 to date, president.

Among those also joining *Consolidated* from the roster of executives of Hall-Aluminum Aircraft Corp. are: Charles F. Pape who was Vice-President, Treasurer and Director; Henry S. Deichert, Factory Superintendent and John H. Smith and John Sangster, General Foremen.

monoplane torpedo bomber, the XPTBH-2. Throughout this period and to the present time the corporation produced and supplied parts and standardized aircraft sections to all principal manufacturers and producers in the United States and Canada. Besides supplying the U. S. Navy with many of its aircraft the company has also supplied the Coast Guard with numerous craft.

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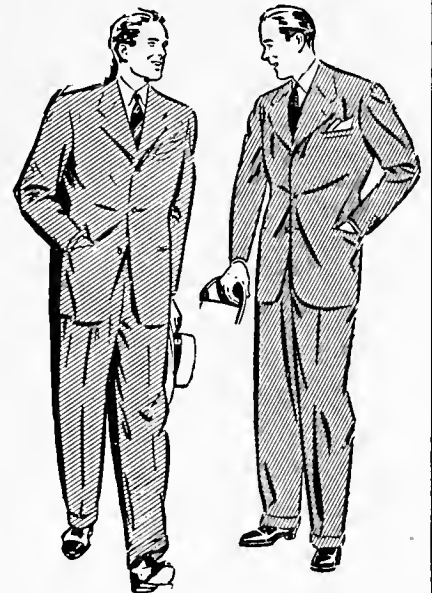
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Major Fleet points out the capabilities and potentialities of our new buildings to William S. Knudsen, chairman of the national defense council, while Major General H. H. Arnold, chief of army air corps (extreme right) and Major McReynolds listen in.

KNUDSEN, ARNOLD VISIT . . .

Consolidated Aircraft was honored on August 23 with a visit on the flying tour of William S. Knudsen, chairman of the National Defense Advisory Commission, and Major General Henry H. Arnold, chief of the Army Air Corps. In their short stay they viewed both the Ryan and *Consolidated* plants, gaining a first-

hand idea of expansion, facilities, and types of craft. Knudsen, in terse reference to our plant said, "It's big," while Arnold elaborated, "A wonderful set of buildings and a beautiful plant." Both expressed keen appreciation of the many features pointed out by Major Fleet.

HOT SHOTS FROM WELDING

By "Willie Winchell" Hartman

CONSOLIDATED is being bombed these days by the stork. F. E. Anderson is the proud papa of an 8 lb. baby girl born August 19 at Scripps Hospital. L. C. Bybee is the papa of an 8 lb. boy born August 17 at Mercy. Ole Massa Stork must be using a PBX to get around so fast. Congratulations to both fathers and mothers.

It isn't every department that has an

All-American Fullback. Our Bill Crass, graduate of Louisiana State, made All-Southern Fullback in 1936. To look at Bill you'd never know he was a footballer, but then isn't it always so. Bill is through playing football now but just in case we start a team we've got a mighty fine start. Bill also played for the Marines here in San Diego, and while a member of the Marine Corps he met the girl he married September 1, Lucille Goodall of La Mesa.

Harlan Dye and Vernon Overbay made a four day trip to the Grand Canyon over the Labor Day holiday.

Bud Wilson is like the mailman who takes a walk on his day off. Bud recently had a very enjoyable time on his vacation—painting his house—costs are beyond expectations.

Ray Wade and Carl Offerman "got took" recently at Catalina. Why not patronize home products next time?

Tiny Campbell, the Sweetheart of Missouri, has it bad. He is planning a marriage for next month and his head is in the clouds. "What fools these mortals be" as the poets say, but not Tiny. Oh, my no! He says a man never grows up till he gets married. Maybe so but we've seen a lot of kids with wives, also.

Ben Kiegle, our genial assistant foreman, recently spent his vacation playing nurse to his young son who had a tonsillectomy. Ben had planned taking a trip somewhere but a tonsil is a tonsil and when they're bad, they are very bad, so Ben stayed home.

We are all glad to see Bill Phillips and F. Aguirre back after a long stay at Mercy Hospital.

Ask Bill Phillips how he likes Tijuana but run like h—when you do because Bill had some minor difficulty down Mexico way recently.

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METAL BENCH NEWS

By B. Pobl

James Wilkinson has just returned from a vacation trip down through Arizona and Texas. By looks and things Jim had plenty of rest and relaxation.

Don Cornell is very much like our friend, Joe Smith . . . he too, swears off most everything most every week.

"Skin" Joplin, of the blisters, sure gets around. We have even heard reports from away south of the border—from there his handle is "Shadow" Joplin!!!

We are all wondering who of the night gang will be the new champion hog caller of the turrets and struts at the next beach bing . . . or whatever it was.

Steve Matussek of the night shift is just another married man now. He has had a honeymoon, passed out the cigars, received wedding presents and congratulations. And now has settled as most happily married men do—and then, his only comment is that he can see his bride only on week ends.

Bud Fuhrman's appetite will get him into trouble yet if he isn't more careful where he looks for food.

This month we will give Joe England honorable mention, and for his maiden fair, to whom he recently became engaged, we say, "You are a lucky girl indeed, but beware of Joe—he's a slicker!"

Jack Earls of the Metal Bench says he would feel better if he could saddle his stool and get the smell of sage brush in his nostrils while working at his bench.

LINES FROM THE LOFT

By Jimmie Spurgeon

Speaking of apples for the teacher, we noticed the big Dahlia on Coughlin's desk recently. We don't like to mention names but the initials are (J. O. Davis).

We can't help but comment about the haggard appearance of Rough House Tony O'Conne. Is the avocado market on the blink or is it the absence of the "boss" that accounts for your rapid ageing, Tony? Follow the example of Weber for passing the time while wifey's away and you too will be feeding the ponies at Caliente.

Occasionally there rises in our midst a genius of one nature or another. Gentlemen, we now offer you Thomas Edison Taber who is forever figuring a way to let machines supplant the work of manual labor. Does anyone have an old shaving mug? We would like to give our young scientific maestro a "cup" for latest achievements.

Sidelines have it that Louie Loyko's wife complains of being an airport widow . . . Tarzan Crieg has been in his daughter's baby bank again . . . co-workers of Chuck Svendsen missed him terribly while he was vacationing (seems they had no one to borrow tools from) . . . "Hairless Jo" Hoffer worrying about the technical aspect of bend allowance . . . Jacobson doing work just half as poor since he broke one of the lenses in his glasses . . . Jack Lawrence can tell you a way to make "Droopy" Strange climb a tree without having a tree to climb . . . Jimmie Adamson wondering how that box of cigars got away so fast . . . "Blitzkrieg" Summers will gladly explain the use of big Berthas for hunting deer . . . We have several in the loft who can tell you about the big ones that got away down Meh-he-co way.

We extend a friendly hand to Bauer and Peterson in their bereavement. Our kindest thoughts are for you two as we acknowledge the loss of your parents.

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TO MY CONSOLIDATED FRIENDS

On October 1st I will terminate my work with CONSOLIDATED and devote my full time to writing ANNUITIES and AUTOMOBILE and HOME INSURANCE. Your patronage will be fully appreciated.

ANNUITIES—A plan of "LIVING PROTECTION," based on building a cash estate by systematic savings that has no competition. **INVESTORS SYNDICATE**, established 1894, resources over one half billion dollars.

INSURANCE—Leading Company in California, lowest cost National Standard Policy and lowest "bank finance rates." A substantial savings on your next car purchase—Farmers Automobile Inter-Insurance Exchange.

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INTER-INSURANCE EXCHANGE**
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Room 209, Bank of America Bldg.
Phone F. 7876



— with Bud Landis

You are back from vacation addicted to loafing in habit-forming quantities. . . .

You've welfared yourself for 2 weeks with pay, now your fancy turns lightly to thoughts of work and how to avoid it.

You have consulted maps of the Open Road, visiting far horizons and near relatives.



But now that the furlough is finished, don't forget your pal of the wildwood days—the gallant automobile that worked overtime on your holiday.

You got so close to nature that a lot of it is still clinging to the car.

Gears are probably hanging on by their teeth, while the crankcase knocks loudly for a fresh change of smoothing syrup.

After touring so far, many a moving part may be suffering metal anguish, and groaning for grease.



So it's time to consult another chart — this time a diagram of your car's motoroperandi.

But don't bother about doing it yourself. Drive in for Shelllubrication.

Your Shell Service Station Dealer will take charge of the vehicle — he'll look over everything and overlook nothing.

He'll grease, oil, lubricate, shine, clean, tighten and otherwise put your travel-tired automobile right back in the running.

SCRAPS FROM THE MACHINE SHOP

By Al (You did it) Pfeiffer

"I'm a bad boy!" cried Spence Smith from out the rear door of that Mexican black mariah as it wheeled him to his new home. Gently but firmly they repressed his attempts at oratory but still he talked his way to freedom.

We are certainly glad that Messrs. Bender, Newman, Myers and the Golems got off on that hunting trip. Not that we are tired of hearing those lengthy tales of prowess with a shootin' iron but we've been eating that venison roast in imagination just too long.

Born and raised in the island paradise of the grass skirt, the hula hula and tropic nights, Dave Ingalls can sure spin some fancy yarns of life in the South Seas.

Oddly enough many of the strange names that machinists give to parts really stick. Most familiar is that wing fitting called the Yellowtail. Long and fish-like in appearance it resembles the finny habitue of the deep. Even the dispatchers have learned to inquire about it by this name.

Most fantastic story of the month is the one about the fellow who is raising a culture of germs. It seems that he had some of his own but didn't take care of them so they up and died. Recently he imported an outside variety and is giving them a good home. Ugh! Imagine breeding them for food and still it's being done everyday by Johnny Myers in the Machine Shop. If you don't believe it, ask him.

After a six months' struggle to get the names of the Frichtel boys straightened out and having succeeded admirably, we are beset by the Davis boys. Like grapes they too come in bunches. And what names—Kermit, Quentin and Aquilla. Not to mention our ex-pug Everett.

More orders for store teeth have issued this month from the machine shop than any other dept. That smart aleck stock chaser who remarked that he could bite out that part quicker than it was being machined should really take notice. It just can't be done, as McCue, Shepherd and Carpenter will readily testify.

A Get Acquainted

SALE

SPECIAL - WHILE THEY LAST . . .

NOVELTY
ASH TRAYS

JAM DISHES
with TRAY
and SPOON

7¢
EACH

RELISH
DISHES

Salt & Pepper
SHAKERS with
Chrome Stands

There is only a limited supply on hand so get yours early.

See Our Outstanding Jewelry Values.
You'll SAVE at this Store.

14 Karat Solid
Gold. 3 Dia-
monds in En-
gagement Ring.
3 Diamonds in
Wedding Ring.

\$32⁵⁰

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No Extra Charges.

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Open evenings until 8:00, Saturday 'till 10:00

The entire family
enjoys a meal
at Morgans---

☆ 'cause each one
can select his own
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—FOR—
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Largest assortment of Trousers
in the City. Any style-any size.

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★ Personalized cards, your choice of over 600 designs, if you order now. Prices, including the imprinting of your name, from **25 for \$1.50**

Select your cards today—we'll bill you for them in January.

STATIONERS CORPORATION
1040 SIXTH AVENUE

Another ace and Mack MacDonnell would have left town. For the boys were gunning for him. It's a good thing you can't get those kind from up your sleeve.

Quite a few machinists unwittingly contributed towards Hank Butler's 11th anniversary gift for which he tenders his appreciation.

Gus Granstedt and "little Gus" hold all attendance records for swimmers at Bonita Bay. Granstedt Jr. pulls that houseboat around the bay.

It's a sad experience but we find that it is impossible to sell a machinist a postage stamp. But give him a gamble and that's all he asks.

Nels Carlberg finally forsook the name of Yngve because anyone reading it could not pronounce it.

Oley Patterson has been sporting a new Chev coupe for the last month. Our guess is that it's insurance against marriage.

Dapper is the word for Louis Brzezinski in that ice cream suit. Bet it's a Tona-wanda importation.

Keeper of the door is the name the boys have hung on Red (Legs) Roberts.

After a swell job of clerking in the Machine Shop Fred Otto has decided to become a toolmaker. Having gained the theoretical knowledge he must augment with shop practice. Good luck, Fred.

The vote for the most delicious dinner we've bummed this month goes to the Scodes household. Flavored to meet the most exacting palate of any gourmet, and served in true Italian style, it was the ultimate in culinary perfection.

Congratulations are in order for Mr. and Mrs. Aiken who were married in Yuma August 27th. Asked Charlie if he had read that book entitled "Live Alone and Like It." He answered in the affirmative and said that it was one of the reasons for getting hitched.

A baby girl was born Thursday, August 22d to Leonard Glazier of the Hull Crib. Name Gail Lynette Glazier, weight 6 lbs. 2 oz.

FORD MOTOR CO.
DEMANDS THESE CARS BE SOLD NOW!

NONE ARE PRICED !! COME IN AND MAKE OFFER

ALL OFFERS Will Be Considered
HOW CAN YOU BEAT THAT?

39 OLDS 6 Sedan. Built-in trunk; 13,000 miles. Folkstone finish and this car looks new. Hand shift on wheel and many other extras. **MAKE OFFER.**

HOUSE CARS
40 Mercury 4-Door Sedan
40 Ford DeLuxe Tudor
MAKE OFFER!

39 FORD Deluxe Coupe. Very low mileage. Original Folkstone finish with new maroon fenders. A perfect beauty. See this car on our show room floor. **MAKE OFFER.**

38 FORD Station Wagon, finished in cloud mist grey. Has radio and tires look like new. Speedometer shows 13,000 miles. You will fall in love with this one. **MAKE OFFER.**

35 CHEVROLET Deluxe Sedan with built-in trunk, knee action, Fisher no-draft ventilation, mohair upholstery, radio and rubber looks new. **MAKE OFFER.**

37 FORD Sedan. This is a beauty, everything about it looks new; look at this one. **MAKE OFFER.**

37 PACKARD 6 Coupe, 5 passenger type. A very popular model and probably the only one in San Diego. Has radio and many other extras. Rubber looks new. **MAKE OFFER.**

38 FORD Deluxe Coupe. We have had so many calls for this model that we haven't been able to keep one on hand and is this a honey! Finished in Washington blue with new radio, grill guard and many other extras; rubber looks perfect. **MAKE OFFER.**

35 DE SOTO Coupe. This bargain defies all competition. **MAKE OFFER.**

35 CHEVROLET Tudor Sedan. A very clean little car that will give ideal transportation. Reduced \$90 to move now. **MAKE OFFER.**

36 FORD Tudor Sedan. Has new seat covers, dark maroon body and fenders with deep blue upper trim. Look this over. 8Z4193. **MAKE OFFER.**

34 PLYMOUTH Deluxe Coupe. Refinished in dark green that sparkles. Rubber looks new and has seat covers. **MAKE OFFER.**

32 FORD Deluxe Coupe, Mohair upholstery. Refinished in Washington blue. A very clean little car that will see you through. **MAKE OFFER.**

36 FORD Station Wagon. Local car that has only been used 19,000 miles. Perfect in every respect. We only needed to wipe off the dust, it is that clean. You be the judge. **MAKE OFFER.**

35 FORD Sedan No. 1539, a beautiful paint combination in metallic maroon and Folkstone trim. Has new seat covers and will give practically new car service. **MAKE OFFER.**

33 DE SOTO Coupe, finished in pale green. Special wheels and white side-wall tires. This one reduced \$100. **MAKE OFFER.**

33 FORD Coupes; you have been waiting for something like this. We have many to choose from. All color combinations. Look them over and **MAKE OFFER.**

33 FORD Tudor Sedans. Seven to choose from. Motors overhauled. 7 different colors to choose from. **MAKE OFFER.**

34 FORD Phaeton. We just traded for this sport job and it is so beautiful we will have it on the spot just to show.

33 FORD Victoria Coupe. This is a 5-passenger model The most popular of its day. **MAKE OFFER.**

33 PLYMOUTH Coupe. Real transportation and in good shape. **MAKE OFFER.**

HILTON MOTOR CO.
1202 BROADWAY
AUTHORIZED FORD DEALER
Open till 10 p. m. Sunday Nite.



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Until 7 p. m. Every

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It's Easy to Park
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Broadway, Front to Union Streets
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Secretary of the Navy, Col. Frank Knox, disembarks at North Island after a flight from Honolulu in the XPB2Y-1.

The crew and passengers making the flight from Honolulu included, left to right: R. L. Caron, RM1c; A. H. Geck, AMM1c; L. A. Flynn, ACMM (NAP); G. K. Herman, CRM; C. R. Roof, ACMM; Col. W. F. Donovan, USA; F. A. Peters, ACMM; Ens. V. Ellis; Ens. J. A. Ferguson; Lieut. T. E. Gillespie; S.c. F. L. Knox; Admiral A. B. Cook; Capt. M. L. Deyo and Mr. J. F. O'Keefe.

XPB2Y-1 FLIGHT . . .

On Monday, September 16th, Col. Frank Knox, Secretary of the Navy, arrived in San Diego aboard the U. S. Navy's *Consolidated* XPB2Y-1 four-engined flying boat in an over-night flight from Honolulu, T. H. The plane previously had flown from San Francisco to Hawaii. It took off from Hawaii at 7:01 on the 15th and arrived here on the 16th at 10:30 a.m.

With Knox on the flight were Rear Admiral Arthur B. Cook, Capt. M. L. Deyo, Knox's aid; John F. O'Keefe, his personal secretary, Col. W. F. Donovan, and Lt. Thomas E. Gillespie, Pilot. Second pilot was Ens. John A. Ferguson, U.S.N.R.

FISHERMEN'S LUCK

By T. I. Woolard

ON Sunday, September 15, a group of employees from Tool Room, Tool Design, Wood Shop, Inspection and Loft Departments set a record while fishing from the live bait boat "Tuna" in Ensenada Bay.

In the space of one-half hour, over 150 white sea bass averaging 5 to 7 pounds each were taken aboard then old man hard luck came aboard—First, the pump supplying the bait tank went on the bum and we lost about half of the bait. Next

the motor developed trouble and we were unable to move the boat.

Those enjoying the trip were: Le Maire, J. Smith, Hangen, Liefeld, and Pastuer of Tool Design; Landspurgeer, Donicht, Gilen, Pfeil, Cummings, Froide, Strumph, Kirsch, Clapper, Gerhauser and Fruedenthal of Tool Room; Woolard and Boyle of Inspection; Bishop and Weber of Loft and Mullican of Wood Shop.

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at a **SUBSTANTIAL**
SAVING

New cars financed at 4 3/10%
Used " " " 4 8/10%
Insurance lowest in San Diego

Call me before you purchase a
NEW or **USED** car. I will
arrange your finance and insur-
ance at a much lower cost.

PHONE **F-7731**
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ask for **RAY DeMAHY**

or bring this adv. to 1340 Sixth Ave.

**AASE (ACE) BROS.**

bring you the best in **LUNCHES, SANDWICHES, COLD
DRINKS and TOBACCO**



3 LOCATIONS--Inside North and South Gates and in Back Center Yard

HIGHLIGHTS FROM WELDING NIGHTS

By Bert Bailey and Myron Olmsted

ANYONE interested in going to Texas and back over the week-end should see Ray Speck. I don't believe it myself. We wonder just where he did go.

George Draper is going to spend his vacation in the High Sierras on a deer hunting expedition. Watch out, George! You may have to carry it a long way back.

Say, Johnston. You should have chosen a color for your car that your wife would agree with. She'll fix it if it doesn't suit her. She did wreck it, didn't she? Are you pretty good at straightening fenders or did the car go to a garage?

Ben Kiegle has been taking Vic Perry's

place for a week while Vic has been up in Oregon on his vacation. Tell us, who has been taking Ben's place on the day shift . . . did we hear Dick Stone make any remarks? Benny is a swell person and the men have enjoyed working under his supervision.

At last! Don Owen will be doing all the dispatching necessary for Welding. So far his work has been above par and there are no kicks coming from this end of the line.

How in the world is Harold DeRemer going to stay awake when he starts back on the day shift next week? He has been on night since January, being the first one put on. Things won't seem the same with out seeing him busily engaged in his plating work.

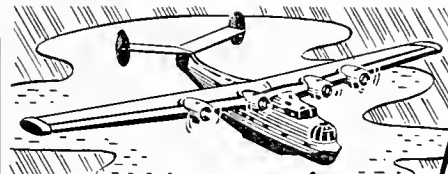
Bob Lang (Beach Comber No. 1) was seen making quite a show at Erskine Hawkins. (Jitterbug jamboree) Frank Hughes and Bert Bailey apparently went just to enjoy the music.

Everyone is glad to see Bert Bailey back again in the harness after a three-month's absence. During that time his wife was chased and caught by the stork—Allen Ray Bailey born July 23, weighing in at 8 lb. 2 oz. Mama and Papa Bailey have put in a claim for him as being the only really cute baby in existence.

Whatever got into Billy (the kid) Berkheimer and Homer (Bees) Higbee. They're just plain meanies—both shooting one deer on a recent Labor Day jaunt to some darned place near San Francisco. Rogers went along, and like mother's little man, shot one whole deer all by his little lonesome. No wonder! He's bigger than Berkheimer and Higbee put together.

It seems as though we have an overabundance of deer hunters on night. Everyone gets to go deer hunting mentally during lunch-hour chin sessions. That's all right—we envy those fellows that have had so much experience and wish that we might've had half as much ourselves.

Make the do-so a little better than the say-so.



THE Streamlined WALKER WAY

Yes, charge account privileges at Walkers' are "streamlined" for the convenience of people in every walk of life. There's a plan to suit any practical purpose . . . to suit each individual. Consolidated employees are invited to take full advantage of any of these plans.

30 Day Open Accounts For Any Responsible Person

Thirty-day charge privileges are obtainable upon application. No long, drawn out "red tape" for responsible people.

90-Day-Pay-Way No Down Payment! No Interest!

On purchases of \$10 or more, in any one or more departments. Pay in small, equal installments over a period of 90 days.

Up to 2-Years to Pay For Major Purchases for Homes

Refrigerators, kitchen ranges, washers, radios, etc. may be paid for over a long period of time. Open to all responsible people. Small carrying charge.

Dept. of Accounts, 8th Floor

"Can't-Bust-'em" Work Clothes for Aircrafters

Ask the man who wears "Can't-Bust-'Em" union made work clothes. He'll tell you how they wear . . . and wear.

Work suits, pants and matching shirts, bib and waist overalls, jackets . . . everything the Aircrafter needs! —Work clothes, Basement Store.

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A. J. Edwards says-

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Largest Clothiers*



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pay checks**

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| PAY | PAY | PAY |
|----------------|-----------------|----------------|
| 1/3 | 1/3 | 1/3 |
| FIRST MONTH | SECOND MONTH | THIRD MONTH |

**NO INTEREST
NO EXTRAS**

BROOKS
in **SAN DIEGO**
416-18 BROADWAY
OPEN SAT. NIGHTS

PRODUCTION MINUTES

(Continued from page 6)

"South of the Border" is the future Mrs. Stockton. My goodness suppose it wasn't and that may have been Owen's "last chance." Roy Larceval claims that "three glasses" of beer is the best tonic a man can take if he is going to turn his car over. That's right. Roy got nary a scratch, must have been sorta flexible.

Joe Maloney's section, which we have referred to by several different names, some not too pleasing to Joe, was comparatively quiet during the past weeks. Dick Cromwell is termed a "welcher" until he "eats" that lost process card according to his bargain. Ed McMahon cannot see any fun in people having babies as he must take over the night shift duties so that Jack Smith can do his night work in "shifting" the baby from arm to arm as he walks the floor—good training for conscription. Alice Vincent was ill but pronounced O.K. and again on duty. "Pappy" Holcomb, sometimes known as "never smile again" and "Thunder Cloud" has been sent to Accounting to untangle some things for Shanahan. Joe has also added two new "blossoms" to his garden in the persons of "Violet" Hallinger and "Ivy" Jones.

"Scoop"—Henry Morgan and Mildred Baillies were hitched in Yuma, September 20, following closely on the trail of Bob O'Donnell who piloted Bernice Lawrence over the same route a few weeks back as did Herman "The Hag" Hagman.

Jack "Buck" Gott is still doing a good "pickup" job with that new bicycle but has to be particular as to weight for he only has a "luggage carrier."

Jack Thompson's story in "Natural colors" about the spots where the deer are so thick you have to beat the does out of the way to get a shot at the buck caused many a *Consolidator* to grab his trusty musket and head for the hills. (They forgot to ask Jack how many he bagged—you ask him). Anyway, those fellows regarded as "wild game's best friends," Lloyd Bender, Geo. Neuman, Henry and Howard Golem and Jim Myers went "via

station wagon" to Patterson Mills. Roy Coykendall and Bob Sebold rode into Palomar on horseback to try their luck and Glenn Hotchkiss, Geo. Landy, Ray Kendall, and half of the Hull were off to Bishop.

To me an appendectomy operation was something to be discussed at bridge and very boresome, but Bob Mussen's operation would fill volumes. Bob was sent live pigeons that escaped in the hospital room, had his appendix pickled in alcohol, kept a staff of ten nurses on the run continually and learned more contortionists' tricks on the hospital bed than was ever accomplished in a gymnasium. During Bob's sojourn at Mercy, he convinced the supervisor of nurses that she should put another important requirement into the curriculum of the trained nurse.

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SAN DIEGO

• EYES EXAMINED
• GLASSES FITTED
• GLASSES REPAIRED

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drink with
the better
flavor!**

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LESSONS in all types
of Dancing, all ages.
Classes and Private
Lessons Daily, 9 a.m.
to 10 p.m.

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ESTABLISHED DANCE
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DANCING

WED. THUR. SAT.
SUNDAY NITES.

SAN DIEGO'S HIGHEST
CLASS DANCE PLACE

Prices: 30c to 50c
PLUS TAX

FROM THE JIG BUILDERS

Hail to the boys who have left us for duty in the National Guard: R. H. Westfield, J. Abel and D. Bryan.

Some people lose their heads and travel in circles. One person, named Watts, lost the throttle on his kiddie car, and traveled in circles until the gas tank was empty. How can a person have sore dogs doing this?

Have you heard the tall fish story told by Harry (Ike Walton) Gillen? He really saw a school of whales—he swears by it. There are several brands of good stuff, Harry.

Les Fillingim has himself a ranch way out in the Alpine Mountains. You should see his avocados; they are of the sun tan variety. He keeps the lights on them all night. A chicken will lay two eggs a day, so why not avocados, says Les.

FORD HOTEL

SHOWER BATHS
Rates \$4 up per Wk



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Business, Shopping and
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Agents for Douglas, Weyenberg, Buster Brown and Endicott-Johnson Shoes.

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1154 - 5th Ave. 4316 University Ave.
7810 Girard Ave., La Jolla
945 Orange Ave., Coronado

WE CASH YOUR CHECKS

FROM THE OWLS' NEST

By D. T. LeFever, No. 12260

Ennis Chaffin, bulkhead riveter, has been playing hide-and-seek with Dan Cupid. He took a trip July 13th with Miss Ruby Oatman to Yuma, and started housekeeping immediately thereafter. Mrs. Chaffin is from Texas.

Then there's P. N. Bilick who basked for awhile in the moonlight and finally dived head first into the sea of matrimony. Mrs. Bilick, nee Flora Riggs of Bakersfield, is the other half of the two. Date: July 1st; Place: Yuma.

Also John Landess got right lucky and took advantage of the "choipin' boids" and soft glances, galloped off to the aforementioned love nitch, Yuma, and Miss Dorothy Workman's name isn't Workman anymore! All on the 18th of August.

And lookit J. D. "Arky" Gilliam; he's getting the ball and chain applied on September 21. He goes stutter-strutting with Miss Carol Conover, San Diego girl, at "Ye Olde Wedding Resort" (guess where). Looks like house slippers, newspaper and easy chair for Arky from now on, I betcha!

Reckon you've heard of the confirmed bachelor who goes serenely on his way, totally oblivious to the wiles of the gentler sex? For five long years he's held off. Now he's had a change of heart and is checking all available sources as to the shortest route to Yuma . . . and the longest one back. The poor bachelor is no more, starting October 5th. The girl, Miss Rilla Sawin, of Oklahoma City will change her name to Mrs. Charles Bottarini. Congrats and all that sort of thing to you both, Chuck. That snickering sound comes from Reno Bottarini, Charlie's brother.

Jake Sawyer, who resides in a sort of semi-palace over on Crown Point, set out some tomato plants and gave them his every available hour. The more he cared for them the more they didn't bear. Giving up in disgust he scorned them for a spell . . . the next time he noticed them they were heavy with a crop.

The Missus and myself are infanticiding and it ain't gonna be long now. We (Continued on page 18)



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FIRST WITH HIGHEST OCTANE
GASOLINE IN CALIFORNIA

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PRICE DROP!

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Ethyl . . . 18¢

GOLDEN EAGLE
Super Leaded . . . 16¢

GOLDEN EAGLE
Hi-Octane. . . 13½¢

DEDICATION...



1. Spread out along Pacific Highway and deep onto Lindbergh Field, our plant now makes an imposing picture from any angle. 2. A portion of the crowd attending the dedication exercises assembled before the speakers' stand and the orchestra's "pit." 3. Rear Admiral Charles A. Blakely, U.S.N. Commandant, Eleventh Naval District, delivering the dedication address. 4. Guests leave the speakers' stand as the festivities conclude. 5. Major R. H. Fleet addressing the crowd.

FIVE years ago *Consolidated Aircraft Corporation* extended an invitation to San Diegans to visit our newly constructed plant. On that occasion most of the visitors were strangers to us, and we to them.

On Labor Day, September 2d, just past, hundreds of friends of the organization attended the dedication of the new buildings . . . new buildings constructed within the past few months which have virtually doubled the manufacturing facilities at our command.

Said Major Fleet to the assembled throng in opening his address:

"Five years ago, *Consolidated Aircraft Corporation* began work in San Diego, the city of our choice, with 300 workers and a plant of 200,000 square feet. Today, we have 9600 men and 867,000 square feet. By Christmas, we shall have 15,000 men and 1,500,000 square feet. We came here with \$6,000,000 of business—today, our back-log is \$132,000,000. In this plant, we have manufactured twice as many airplanes of over 100-foot wing span as have ever been made elsewhere in this country."

His address then diverged to attack strongly the new bill authorizing peace time conscription of plants, pointing out that *Consolidated* had planned to announce further expansion at the dedication ceremonies, but hesitated to expand even in the light of the fact that all the organization's might as a private enterprise is behind the preparedness being stressed through aviation manufacture.

Vice-President Edgar N. Gott, was master of ceremonies, several distinguished guests made brief addresses and congratulatory messages poured in. Addresses were given by:

Brig. General Frank D. Lackland, U.S.A., Wing Commander, March Field.

Maj. General W. P. Upshur, U.S.M.C., Commanding Department of the Pacific, Fleet Marine Force and U. S. Marine Corps Base.

Col. Peter H. Ottosen, U.S.A., Commanding Fort Rosecrans.

Major R. H. Fleet, President, *Consolidated Aircraft Corporation*.

Rear Admiral Charles A. Blakely, U.S.N., Commandant, 11th Naval District.

The dedicatory address of the day was given by Rear Admiral Blakely who said in part: "I hereby dedicate this new plant to work in national preparedness, to help maintain our rightful place as a mighty nation. And when this present emergency shall have passed, it may be dedicated in more glorious activity in supplying commerce with its products. I congratulate Major Fleet and his associates on this fine plant and bring the best wishes of the whole. I declare this new addition and plant to be open."

Supplementing the speakers was music in the form of stirring military and popular numbers rendered by our newly formed orchestra under the direction of Edward Borgens, the *Consolidated* Glee Club and Richard Holtzclaw, soloist.

As the ceremonies drew to a close, and since, congratulatory letters and telegrams poured in from many sources complimenting Major Fleet, the organization, the speakers and all participants in the celebration for the achievement marked, and the spirit displayed in the festivities. We have reason to be proud of our plant and our dedication.

RECREATION NOTES

By Ralph C. Smith

OUR golf team which opposed North American, certainly did a bang-up job, taking the northerners 9 matches to 1. The team was composed of: J. Johnson, R. Osgood, T. Johnson, D. Boysen, H. Le Barron, J. Fitch, J. Berry, F. Meer, F. Rhodes and M. Doer.

North American Tennis Team came down here about a month ago and made us look like rank amateurs, beating us 4 matches to 2. Our tennis men decided that this was all wrong, so in a return match played at Los Angeles, the locals come up with a tie which is an improvement over their first match. We now are sure we could beat them in a 3rd match which we are trying to arrange.

SINGLES

Miller (NA) vs. Brigg (C) 10-8, 6-2.

Shull (NA) vs. McClarren (C) 6-4, 6-4.

Shayler (C) vs. Schmidt (NA) 3-6, 6-0, 6-3.

Sjoblom (C) vs. Jackson (NA) 4-6, 6-2, 6-4.

DOUBLES

Drutiner & Craig (NA) vs. Shellbach & Lockwood (C) 8-6, 4-6, 6-2.

Boyle & McGowan (C) vs. Phillips & Phillips (NA) 6-4, 6-3.

Our tennis team really put on the heat when Douglas came down on September 1 and took an awful drubbing, losing all but one match.

SINGLES

Pirard (D) vs. Bugg (C) 4-6, 6-2, 6-4.

Shayler (C) vs. Bushnell (D) 6-3, 6-3.

McClarren (C) vs. Ronald (D) 6-4, 3-6, 6-4.

Boyle (C) vs. Jue (D) 6-3, 9-7.

DOUBLES

Sjoblom & Oats (C) vs. McGuire & Strand (D) 6-4, 8-6.

Shellbach & MacGowan (C) vs. Cole & Hammil (D) 6-3, 6-0.

A special exhibition doubles match between Douglas' two best singles players and Consair's best resulted in a win for the locals.

Gugg & Shayler (C) vs. Pirard & Bushnell (D) 8-6, 6-2.

It looks as though we have a real tennis team. Nice going, fellows, and thanks to Vernon Hudson and his committee for their help.

We have been trying to make arrangements for a gym for our boxing and wrestling club which is being formed. All those interested, please contact Mr. Gilchrist or Ralph Smith or leave your name and clock number at the Welfare Office. We have had numerous requests for this type of recreation and have two or three likely spots to work out in mind.

In a special softball game between the day crew and night crew all-stars they played a 5 to 5 tie at Monroe Field. The day crew: Way, Whittaker, Olsom, Gilmore, Staab, Gleason, Peterson, Bell, Oden, Dowler, Selnaggi and Gonzales. The night crew, led by George Wire, consisted of

Hernandez, J. Orena, F. Hanzlik, B. Leeman, A. Artenfelder, Adams, Hill, Underwood, Winn, Bernardini, Mc Burney, Bartoncini, Doerr, Calamia and Darling.

In the second game, an all-star squad from the plant played Reddy Kilowatt in one of the best games of the season. Burns gave the opposition very few hits. We lost the game by a 2 to 1 score. The plant team consisted of Helm, Galasso, Johnson, Willingham, Spaulding, Simpson, Beyer, Ondler, Burns, Calamia, Kimball and Grepalva.

We see where the *Consolidated* spirit of good fellowship and appreciation has come to the front again, in a very heart-warming gesture. The Hull Department bought a trophy and presented it to John "Scotty" Doig in appreciation of his good sportsmanship and untiring efforts to further promote golf in that department.

Another challenge that I know will get a lot of takers: Day Wing Dept. challenges any and all Depts. to a tug-of-war contest to be held the second week of October, possibly at Monroe Field. Now is the chance for all you big strong men to get your departments together for this contest. See Mr. Gilchrist or Ralph C. Smith.

With basketball season in the offing, would suggest that all departments to enter teams, contact their men and be ready to go at a moment's notice, as it is going to be difficult to arrange for courts this year. Please call at the Welfare Office and get activity cards for your teams to sign.

TENNIS

The plant doubles tennis tournament wound up with Sjoblom and Shayler holding the final chips. Lockwood and Boyle, runners-up. Hudson and Bishop defeated McClarren and Widmer for consolation honors. The two winners received trophies with the next two and consolation and runner-up men getting medals. It was a long drawn out tournament due to matches with North American and Douglas interrupting the schedule.

Tom "Father" Coughlin, president of the bowling league, advises us there will be 18 teams (night shift) bowling Monday afternoons 10 teams (day shift) Monday nights; 10 teams from the Engr. Dept. bowling Tuesday nights, and 16 teams (day shift) bowling Friday nights. Fifty-four teams in all.

WOOD SHOP CHIPS

By Ernie Hodgson

IN THE softball game held Sunday, September 8, by teams representing day and night shifts, the Wood Shop's reputation was upheld by Harry Whittaker, pitcher. However, the game had to be

called at the end of 5 innings and resulted in the score being a draw.

It's no wonder Campbell Murray's hair stands up on end. During his recent vacation, he and Mrs. M. drove to the World's Fair in San Francisco. One evening about dusk he reached a huge pass on a mountain where there is a considerable drop from one side of the road to the earth below, to find a car stalled ahead of him. He alighted to help the other fellow, only to have his own car stall, due to the high altitude. Finally, his engine started and when he attempted to put the machine in gear, the lever handle came away in his hand, and the car rolled within inches of the edge of a 600-foot precipice before he regained control.

The Wood Shop Bowling hopes are pinned on the team comprising Charley, Pagorel, captain, and a team made up from the following: Frank Mische, Duncan Jamieson, Clarence Boyle, Bob Jones, Bob Hall, and we have the makings of a championship team in these boys. They will bowl in the Friday night league.

We have been asked to get the F.B.I. on the trail of someone in the south end of the Wood Shop who goes around among the boys' lunch boxes and helps himself to sandwiches. For the benefit of the sleuths, the initials of this sandwich grabber are Pat McKinney, but don't let on I told you.

Another of our younger set, Clarence Pepper, went off the deep end and got himself all married up, to a very charming young lady, Eleanor Vigneau by name. Warmest congrats hardly seem necessary.

Wally Isom got a new car and now the young femmes keep him so much occupied each evening, that he goes 'round all day star gazing, or just groggy.

Andy Anderson is maybe going after a record or something. We only got through wishing him well after giving up his appendix, when off he goes again to part with his tonsils on September 14. I hope. Andy, your throat is not too sore to laugh at this, for all of us wish you the best.

Bob "Pappy" Hardacre is back in the Wood Shop again, after a two-month session among Bob Walt's steel fixtures. He remarked that he was afraid that if he worked among that iron work much longer he'd start climbing over the new construction work, and after all he IS a WOOD pattern maker.

Ruminating among the beauties of Sequoia National Park, Johnny Cossar felt a sandwich being gently removed from his hand. On looking around, he discovered the thief to be a fawn. The little deer!

(Continued from page 15)

haven't decided whether it's to be a girl or a boy but as long as it's got fingers and toes we just ain't gonna have time to be bothered.

Glenn Rash, the Seattle Flash, has that very-smacked-down-by-Cupid look in his eye.

Chuck "Speed" Behil had to take a week off for an overhaul. Feelin' fitter and fitter now.

Bud Schimmin just returned from a nice long hop to Ohio. He says outside of having to drive half the way in a mud hole that it was a swell jaunt.

Gib "Beau Brummel" Rogers features

all week what the well-dressed time keeper will wear. He is the nearest thing to a sunset with a belt in the back we've ever seen.

That ain't no baby Jack Isherwood is carrying about in his arms so tenderly, that's a tool box.

Lou Fisher is starting one of his boys on an early career . . . from all angles it looks like a political one. The little fellow swallowed an "Izac for Congress" campaign button and Lou spent a few anxious hours retrieving it.

We're kinda missin' Dan Gallagher around here. He ups and takes off for Final Assembly. Anyhow, good luck, Dan.

Jack Griffin too, takes a gander at the grass on the other side of the hill by forsaking Bumping for the yard.

Bill "Double-hole" Thompson changes from night to day just like darkness changes to dawn.

Victor "Mauscha" Mainhart and his business manager spent the Labor Day weekend dancing the accompaniment to Bob Crosby's band at Santa Catalina.

When someone decides to carry out the family ice-box, silver, rugs or just kinda want to probe the available pockets in the house while you sleep sweetly on . . . don't call the police on awakening with hair on end. Just do like John Bowles, another of McJoyner's boys—sit right up in bed and yell "Martha!"

Fred Maus, Reamer, has a friend in Topeka, Kansas, who won the \$3700 the Pot of Gold program had to offer on a recent broadcast. Fred says he worked with the fellow for 11 years in the railroad shops back there. Seems like Fred oughta get a pension or something. C. W. Meinsen, who works with Fred now, says it's a pleasure to even work with a fellow who worked with a fellow who gets \$3700 on any kind of a program!

When Big Bud Lehman gets a bunch of those long stringers on his shoulder, that big leather mallet in his hand and starts somewhere with them there's no argument over who has the right of way.

Dick Hamilton is having a little trouble getting his todays and tomorrows straightened out . . . when Dick comes home and says he guesses he'll go to town "tomorrow" his wife immediately wants to know if he means "tomorrow" or "today," and of course he means the latter.

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SAN DIEGO FLYING CLUB NEWS

By "Spike"

THE SOCIAL event of the month was the breakfast hop held on September 1. It took all the sporting blood the boys could muster to get out so early in the morning. Nine airplanes carried the fourteen enthusiastic participants to the Occanside airport where automotive transportation had been previously arranged. After a hearty breakfast at the Beach Hotel the events were reversed and the airplanes, pilots and passengers returned to their respective airports. S.D.F.C. was represented by Stan Petrol and Dave Davidson in the Rearwin Sportster while Bill Bunsen and Charlie Culver fought it out in the Cub "50."

On August 28th Stan Petrol passed his examination with "flying" honors and thereby acquired the long-longed for, long sought for first goal of the student pilot—the private certificate.

"O, Solo, Mio" has been the theme song of several of the new members. And three of them have soloed. They are: Meyenburg, Denyer and Allara.

H. H. Barnes and F. V. Williams joined our big happy family during the last two fortnights to close the Club's membership of 60. Already a waiting list has formed and as soon as this list builds up a bit it will probably be the action of the Club to increase its quota to 80 and a fourth airplane purchased.

Our very active and popular president Tommy Butterfield has moved to Los Angeles. Although he is retaining his membership he will no longer be able to carry out his former executive duties and will therefore be missed very much. Our re-election of officers will take place the first Friday in October.

Another breakfast hop has been planned for the first Sunday in October. This time the ham and eggs will be devoured in "turkey center" Ramona, and any readers who have or have access to airplanes are cordially invited to join our hungry mob.

J. G. Taylor expects to be passing out the cigars before many months.

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NITE WOODSHOP NEWS

By W. Lloyd Purser

WE wish to express the deepest sympathy of his fellow workers to Al Withers due to the loss of his father.

Ralph Berg has been giving us glowing reports of the progress he has made in the improvement of his country estate (if such it may be called for literary purposes) among which is a barbecue pit. He also tells of a young goat which might be called a nuisance so maybe Berg will take the hint and see if the two can't get together. How about an invite, Ralph?

Saturday, 2:30 a.m., Sept. 14th. Heads

up, shoulders back, to join their fellow Guardsmen: Harwick and Carnett are our loss but the gain of the cookshack for they both have First Cook rating.

After enjoyable vacations, we find Bill Thomas—who made a speedy trip to Chicago; Steve Dodds, who reports that his jaunt up the coast to Portland was more like a second honeymoon; and Woody Etchings—who gave Seattle a thrill (would you believe it?) all back and hard at work again.

Bailess, Secor, and Eggers have returned to the ranks of normal men and are now working days.

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HULLabaloo

By Al Leonard

Johnny Glenn, the Boonesboro, Maryland, hillbilly who put on his shoes and climbed out of the hills to the Hull De-

partment, is very much domesticated although he has only been married one month. He has already learned to wind up the cat and put the clock out. Johnny is allowed to go out one night a week, but he says as soon as his knitting improves, he will give that up.

Harry MacEwan and Johnny Hopman recently flew back east while on company business. All reports of their romances with the air stewardesses will have to be largely discounted, however, as they were chaperoned by Mrs. Hopman.

The last meeting of the *Consair* Rod and Reel Club was highlighted by the "flea-weight" bout for the championship of the Hull Department. Tommy Johnson represented the south Hull and Bill Pettitt the north Hull. Tommy won the judge's decision after a hard fight. It is safe to say that although Johnson threw the hardest punches, Pettitt did not feel them after the first round when he was tagged with a terrific wallop. Bill then went through what the older members recognized as the "Dance of the Dying Swan," made famous by Nazimova, famous danseuse of the Russian Ballet.

Golf Tournament results:

FIRST FLIGHT

| | Gross | Handicap | Net |
|------------|-------|----------|-----|
| Willoughby | 95 | 20 | 75 |
| Millar | 95 | 19 | 76 |
| Verne | 92 | 15 | 77 |
| Doig | 92 | 15 | 77 |
| Johnson | 82 | 0 | 82 |
| LeClair | 91 | 8 | 83 |
| Grossher | 98 | 14 | 83 |
| Brooks | 99 | 15 | 84 |
| Chaplin | 110 | 20 | 90 |
| Hassler | 110 | 18 | 92 |
| Porter | 112 | 20 | 92 |
| Leggott | 112 | 20 | 92 |

Blind Bogey—Leggott.

SECOND FLIGHT

| | Gross | Handicap | Net |
|------------|-------|----------|-----|
| Cole | 95 | 21 | 74 |
| Peterson | 105 | 30 | 75 |
| McCoy | 109 | 30 | 79 |
| Lessing | 104 | 23 | 81 |
| Rutherford | 103 | 20 | 83 |
| Nickolsen | 104 | 18 | 86 |
| Parker | 112 | 25 | 87 |
| Rogers | 114 | 27 | 87 |

| | | | |
|-----------|-----|----|-----|
| Clark | 111 | 23 | 88 |
| Ernst | 115 | 27 | 88 |
| Mayer | 113 | 20 | 93 |
| Karpinsky | 125 | 30 | 95 |
| Pettit | 126 | 28 | 98 |
| Martin | 133 | 30 | 103 |

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PLANT POLICE NOTES

By Frank Thomas

"Where there's smoke, there's powder"—1500 rounds a month has made Harris a champion pistol shot—Leo almost "blocked out" Smith No. 1 in the group picture—What Brooks lost on Leo "the gate", they made up on Mitchell—Harold Sawyer, not to be outdone, broke out a new suit uniform day—Jim Morris is heading a movement for chimes on the telephones (too many bicycles)—John Ton moved on Knudsen day; saluted Major Arnold 8 times, 4 with glasses on and 4 without—Shea was runner-up, 5 times—The Army Inspectors are thinking of calling Capt. Casey for active duty after watching him line the men up—They could use Andy Anderson at the "Marriage Bureau" the way he handles the crowds at the employment office—Byers and Thomas interchange caps (size 7½).

"Fish as is"—Harris gifted our members with a box of oranges—Doc Learn provides melons and tomatoes on occasions—"Fine as frog's hair" meant just that to Capt. Roth and Daggett; Joe Bell doing the honors by way of his private pool—Byers providing deer steaks from out Julian way—and *Gourmands*: Irving one sandwich—Sawyer two lunches—Daggett and Byers running "gobble and gobble" to be biggest eater—Capt. Roth on his diet (three sandwiches, cake, pie, coffee and a pint of milk—and the Coffee club, Starrett, Shumway, Irving, Capt. Casey, Baker, Rudin and Armitage.

"Down Motor Row"—Mitchell enjoying his vacation in a new Dodge with chauffeur—Leo and another Ford going by—Capt. Shattuck riding in style in a La Salle—Wilson in his College Club Chevrolet—Fox getting fender conscious about his car in front of the employment office.

"Dedication Day"—many thanks to the Company for the soda and candy—Bill Graves stopping all the babies at the gate with "baby" talk—Major McReynolds complimenting both the Marines and the Plant Police.

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THE CLEAN SWEEP

By G. "Broom" Browne

Frank Heidemann of Wing department has been promoted to assistant foreman. Frankie certainly has all the qualifications to meet his new position.

Tod "Deme" Carter and George "Repub" Moore of night Production certainly have what it takes to argue politics. Certain nights they surely make the fur fly!

During this rage of mustache growing, we see Roy Christofferson and Pat Dowling, of night Production, have upper lip adornments. Roy has dyed his cookie duster red and one can see it fairly well. Pat's is so light you need a magnifying

glass to detect it. Why don't you boys give up?

R. Vetter, Punch Press, made the dog house when he came home in the early morning singing "South of the Border."

Norman Goswick, Punch Press, and Donna Henry of Escondido were secretly married in Yuma a few weeks ago.

The latest Sheet Metal mystery is who is "Tom?" It is reported Joe Shields, Cutting Room, is detective on the job.

If Al Sharp, Final Assembly, doesn't stop ribbing Algie Choate about coming from Tennessee and having that southern drawl Algie says he will give Al a "Chattanooga gravel shampoo" without oil.

Craig "Husing" Clark was recently heard all over the ball park. At the night all-star game at Monroe Field, Craig was the one and only announcer. This was one time Craig got in the last word.

DRAW BENCH BENDS

By Roy A. Weist

Joe Friel and Ralph Way, after spending part of their vacations in Catalina, are now back to work, and looking forward to next year's vacation.

The fellow we miss most these days is Ed. Isaacson. Ed is a National Guardsman, and he has joined his regiment for further training.

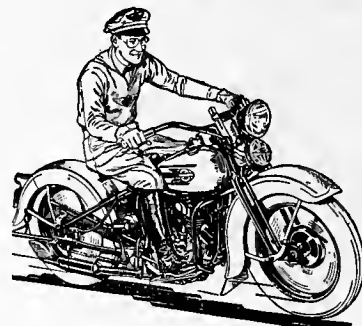
Cecil Spann recently stated that he is building a new home at Bay Park Village. We're all waiting for a little house-warming celebration.

Draw Bench Employees:

I would like to take this opportunity to thank you fellows on the day shift for your cooperation with the Consolidated Athletic Association, in responding with record support of the All-Star Softball Benefit game held at Monroe Field. Our department, although one of the smallest in the plant, purchased the largest number

of tickets. With this achievement behind us we will endeavor to maintain this leadership in future activities.

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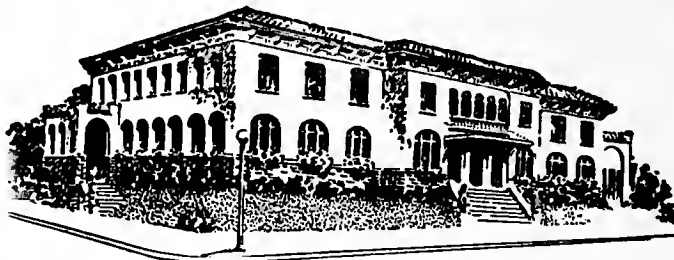
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MORTUARY

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Lawson Rollo of Wing and Miss Lucille Morgan spent Sunday, September 22, at Yuma, Arizona, for the usual ritual. Good luck and happiness, say we.

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NITE WING TIPS

By Carter

Congratulations to Frank Heidemann on being made assistant foreman in the Wing department. We can all say "we knew him when."

Johnny, Thomas Lipton, Petit has come back from his vacation sporting a small group of reddish hairs on his upper lip.

Blind Tom Kipple is still looking for some glasses so the fast balls won't slip by him.

We welcome "Bill" Hampton to the charmed circle of Nite Wing Dispatchers, the cream of the crop. Jerry Allen, Sunny Boy to youse guys, is somewhat of a bowler, they say.

Tex Vining, that South of the Mason-Dixon Line flash, has been inquiring about the shortest route to Yuma. Steve Powell, the Wing Maestro, is wondering what to do with his two helpers, Steve Smith and Heidemann. Boss Powell is afraid that now he won't have anything to do, and will lose the smoothness of that famous "down the aisle" sprint.

Brownie, the fair-haired boss dispatcher from way down under (Final Assembly), has not lost his shadow, altho Snail's-Pace, Flash Choate, the Dixie Demon, is running Shadow a close second in their race to glean a bit of the Browne technique with the ladies.

A word or two to the wise:

Don't start "Dagwood" Phillips talking about "my baby."

or Parson Flenniker about "my glamour."

or the Earnest twins about "how we fish."

or Heidemann about Crown Point.

or Dick Cole on "parts I never got."

or Shadow Starkey on Ford V8's.

or Craig Clark on "my patio."

or Jim Mussen on "how I like dispatchers."

or Carter on "why I wrote this drivel and laid myself open to libel."



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MORE YOUNG CONSOLIDATORS

Here we have another group of up and coming new members of the *Consolidated* family. We didn't manage to get a picture of Major Fleet's new daughter, Nancy, but it looks as though we have all of the newest *Consolidators* who are just a trifle older. And incidentally, the securing of all these fine portraits would have been impossible were it not for the large group of right clever snapshooters who seem to have a camera on hand at just the right moment to catch their offspring in the best of poses! A fine group of snapshots, and an even finer group of youngsters, etc. We take pleasure in adding to the por-

traits of last month, those pictured above who are:

1. Miss Diane Marie Helling is nearly 2½. She is the daughter of Gilbert Helling, 9387.
2. Bobby Whitmoyer is 15 months old. His daddy, Paul, works in the Wood Shop.
3. This is Margy going to work. Marjory Lee Agard is the 16-months-old daughter of Frank Agard, Hull Department.
4. A cake, with one candle, please, for Robert Lee Myers, son of Ralph Myers, 9381.
5. Marilyn May Morris, daughter of F. J. Morris of the Tool Room is preparing to cut her third birthday cake.
6. Miss Patricia Alma Farrell, 18-months-old daughter of Earl Farrell.
7. Pussy won't get away from little Carylon Jean, daughter of Bud Farrar of Maintenance.
8. Little Clyde Hammett at 5 months. Big Clyde is a tube bender.
9. Baby Laurelin Ruth, daughter of P. F. Dukelow, No. 8294.

10. Curtis Franklin, Tube Bending Department, is mighty proud of 9-months-old Judith.

11. Judith Ann Robbins smiles her prettiest for us. Her daddy is Bruce Robbins of the Wood Shop.

12. "Daddy is a jig builder," according to James R. Duffy, Jr., 8-months-old, and Dicksie Ann Duffy, 2-years-old.

13. Miss Patricia Jean is the daughter of Edward C. Deyo of the Finished Parts Stores.

14. Ronald Eugene Carlson is the son of W. A. Carlson, Wing Department.

15. Here we have George, Junior, and his mother. George is the 3-year-old son of G. H. Roach of Wing Bulkheads.

16. And here is G. H. Roach's 6-year-old daughter, Peggy Ann.

17. James Robert Culver is 6-weeks-old. His daddy works in the Tank Department.

18. Marilyle Martin is nearly three now. Her daddy works in the Finish Department.

19. Hull Department's J. R. Hobbs is mighty proud of 9-months-old Dorothy Ann.

20. Janet Marjorie Boggs is the 4-months-old daughter of Ralph S. Boggs of Final Assembly.

21. Mrs. M. G. Spillman with Mary Joe, 4, and James Russel, 6.

22. R. G. Sayles (Drop Hammer Dept.), his wife and baby.

23. Young Harry Michael Stansbury is the son of H. L. Stansbury of the Wing Department.

24. H. E. Smith of the Metal Bench forgot to tell us his son's name.

25. Wayne Henry Fink is only 6-weeks-old, and mighty hungry right now. His dad is in the Drawbench Department.

26. Young Russell Hardesty's father, J. R., is in the Hull Department.

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27. A new engineer for Consolidated. Month-old Richard Frindt, son of Ray and Alberta Frindt. Daddy is a Liaison Engineer.

28. David Marvin Castle lives in Escondido. His father, Frank, is in the Wing Department.

29. Carolyn, 3½ years, and Everett, 14-months, children of Everett Oliver, Wing Department.

30. Edward E., Mae, and Alexander Wilson. The Welding Department claims their dad.

31. Two-year-old "Dickie" Friel, son of Joe Friel of the Drawbench.

32. Sleepyhead! This is Paula Youngers, month-old daughter of Merlin Youngers, Wood Shop.

33. This lucky duck is being fed by 3-year-old Joyce Lynn Bell, daughter of Howard G. Bell of Production.

34. Woerner's two boys, Ronny at 3-months and Alfie at 3½-years, with their mother.

35. Two teeth and raring to go at 3-months and 3-weeks is Jeffery Lynn Miller, son of Bill Miller of Production.

36. Eighteen-months-old Billy is the son of Ross W. Reymar of the Hull Department.

37. R. B. Ashe, Wing Department, says his baby's name is Bobby.

38. This is young Ray, Jr., Dad is Ray Talmage of the Metal Bench.

39. Peggy Ann Wade is the daughter of R. W. Wade of the Welding Department.

40. This dressed-up young man is James B. Powell, Jr. James, Sr., works in the Hull Department.

41. Jimmie is 2-years-old. His dad is Milt Hagen of Tool Design.

42. Michael Leroy Harbert is the one and only nephew of Kathleen Schneider of Purchasing Department.

43. Sterling, 2, and Donna, 10, are the children of Burnie Silver, Wing Department, night shift.

44. Jimmie Patterson, son of J. W. Patterson is five.

45. T. Brungarot's (Metal Bench) baby.

46. Things are looking up for Deanna Betty, 2-months-old daughter of Perry Winslow of the Wing Department.

47. A serious young lady is Peggy Jo De Hass, 2-years-old. Her father makes tanks.

48. Presenting: Miss Mary Louise Crim, 7-months-old daughter of Virgil Crim of the Hull Department.

49. Young Bobby Plantz, son of D. C. Plantz, turns on the glamour for the Consolidator.

50. Margaret Jean is 3-weeks-old. Paul Otten, Sheet Metal Department, says this picture was taken at 3:30 A.M.

51. Freddy's daddy is A. G. Knighton of Welding. Freddy is 14-months-old and weighs 23 pounds.

52. And here we have the greatly over-worked Stork, hidden deeply away in the woods . . . taking a well deserved vacation, according to "Red" Boyle of the Plaster Shop.

SHEET METAL NEWS

By H. B. Millman

The Sheet Department welcomes Eddie Klenner back after several years in the Experimental Department.

Ward Levere is leaving us to become a teacher in the vocational school. Lots of luck, Ward.

Bill Leaser had a very interesting trip over Labor Day, going to Las Vegas, Nevada, for several reasons; also to see Boulder Dam.

Mr. and Mrs. Paul Otten are the proud parents of an 8-pound baby girl, Margaret Jean, born August 21.

We found out why Daniels is getting so fat—he takes the cook home every night.

Ed Cavallin and Francis Wideberg were married September 14. They celebrated by taking a flying trip to Hollywood. They will make their home at 1043 Robinson St.

The Punch Press Department has organized a bowling team with which they hope to make a clean sweep of the coming tournament. The team is composed of John Maroney, Captain; William Gulez, Joe Harrigan, Joe Accettura, H. L. Davis, Cliff Bashore and Robert Frazier.

We would like to know who the little lady is that is seen so much lately with Earl Hansen.

Barney Farley should have longer noon hours; he can't seem to get back from his girl's house in a half hour.

We congratulate Connie Seaderquist, Walter Borg and Al Johnson on becoming assistant foremen.

Harold Ferguson says he is going to need a larger house and a larger car—we wonder why.

Kenneth J. Wandel is about to make the big jump into sea of matrimony, October 12 being his last day of freedom.

W. Hutton went deer hunting and replaced a rear axle in a car, repaired an overturned trailer and still shot a deer, all in the short time of six days.

Danny Felix bought a new car and would like to get married, but says he can't find a girl that will have him.

Wilbur Cullison says he had to come back from his vacation to rest up after taking in the San Francisco Fair.

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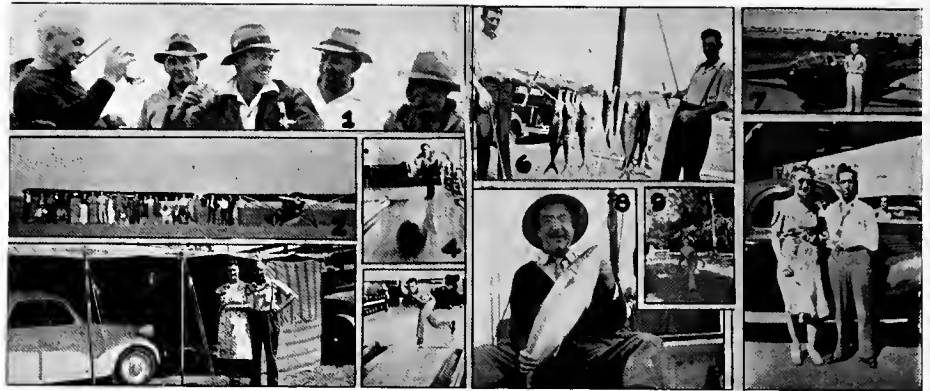
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FIRST AT "A"



• The Whiffenpoof is one of the most obnoxious members of the varmint family, which goes to make up the folklore of the American lumber industry, says Harry Whittemore, manager, Benson Lumber Co. Legend describes "Whiffenpoof" as . . . "swimming down both sides of a stream at once, cooling off its hot temper by carrying its tail plume-like in the breeze. To catch Whiffenpoof, the loggers squirt tobacco juice in its left eye."



CONSOLIDATORS . . .

1. Left to right: Walt Grey, wood shop; Harry Gillen and Geo. Gerhauser, tool room; Van Woolard, inspection; and Lou Pfeil, tool room; in a jovial mood on their recent "hard luck" fishing trip to Ensenada.
2. A group of San Diego Flying Club members and their friends taken at a recent dinner meeting. This was all that they could get to stand still at one time.
3. Speaking of babies, George Frohn, welding department, has a Fiat he uses in conjunction with a 20 foot trailer, believe it or not. George never worries about parking, he just picks up the Fiat and tucks it inside the trailer. Saves gas, too, going down hill. He has a garage attached to the trailer as the picture shows. We still have to see it to believe it.
- 4 and 5. Yesser! Bowling season is at hand! Here we have Roy A. Schultz (5) and Stan Marcyan (4) showing the novice keggers how it should be done. Rumor has it that the flash gun used in taking these pictures ruined what would have been a hefty strike by Stan.
6. The Georgia Twins, "Sparky" and "Red" Earnest went a-feud'n and the poor fish paid the price.
7. Vic Korski, hull department, at Torrey Pines standing in front of the "Baby Bomber," the sailplane in which Dick Essery as pilot and Vic set a national distance record of 132 miles.
8. "Woolfe-puss" McGiffen, with the yellowtail he DID NOT catch.
9. Bruce Pohn, No. 9307, gave us this picture and asked us to print it, saying it was Wilford "Nancy" O'Neal.
10. Russ in the metal bench department has gone the way of all flesh. He took himself a bride and flew to Yuma so that he could honor, love, and obey. Meet the Missus.

HAMMER GOSSIP

By Harrison

'Tis rumored around the hammers that "The Claw" is none other than a certain dispatcher who chases stock for Morrison. Sorry to give you away, Otte.

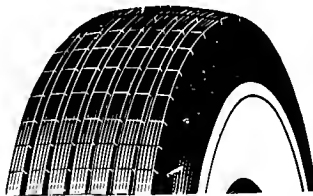
Lou Barkuloo is having a nice time now that his wife has gone east on a vacation.

Congratulations to Chuck Pjirrou on his new position as assistant foreman.

I wonder if that really was the Drop Hammer clerk we saw going to the premier of the new State theater on El Cajon. They say he had a tux on—"Well, glamour boy, what have you got to say for yourself?"

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TANK HIGHLIGHTS

By *Hertbel Chappell*

Ernie Backhaus and family have recently returned from their vacation at Catalina.

The fellows have been wondering why Ted Schwarz has been saying, "maybe so I t'ink." Is it because of the little senorita he has been seeing a lot of lately? Rumors are, that her name is Mickey.

They tell me that Forrester is going to join the lonely hearts club. It seems he lacks the so-called nerve to ask the girls for dates. Don't be bashful, Forrester, for it will get you nowhere with the women.

Here's a hot one! Jimmy Saftig is having lots of luck at fishing lately. No, I didn't say good luck!

Do you know we have a Don Juan amongst us? The fellow is Mendy Mendez. It's so bad that Johnnie Hume has to drive him home a certain way every night so that Mendez may say "hello" to his red head on 16th Street, the brunette on 17th, and the little blonde on India. What a man!

I wish to rectify a mistake in regards to Dick Lighthiger. He is not married as yet, but plans to do so in the near future.

George Price seems to be in some sort of a daze. George is asking his pals if \$200.00 is enough to pay for an engagement ring. Wow!

Counihan, the duke of the Tank Department, went to Tijuana to make his fortune. It seems that for some unknown reason, Duke and his girl friend lost all of their money except a four-bit piece. After deep concentration, they decided to flip the coin to determine whether to buy a drink or to play it on the nose of a favorite. In doing so, the coin rolled into a drain. Moral—don't flip near a drain.

It wasn't told to me, I only heard! That Arkansas Wade, the daring Romeo, needs a note-book to keep track of his dates. Mistaking a certain young lady for his date, he nearly got his ears slapped down when the right girl suddenly appeared on the scene. This happened at the Trocadero.

Keith Johnson and George Carlson, newcomers to tank, are both planning to be married in the near future. Good luck, boys.

It's a case of older brother being boss over the younger brother, even if the younger brother is the larger of the two. We are speaking of the Turoski brothers. Juel, the older brother, has the car whenever he pleases, and Ziggy, the younger brother has it when he can get it. Brothers, younger, older, larger, say who started this anyway?

TUBE BENDING

By *Hart*

Rumor has it that Lanny Rice is trying to get into the Canadian Air Service.

Herman Deische and Erwin Lange have shipped their families off to the east for a vacation. No chance to get into the dog house now, eh fellows? Frank Tannura sees to it that Herman doesn't get lonesome while the wife is away.

Harry Weber, a large booster for the Tube Bending Department, is quite a skating enthusiast. It has been reliably reported that he went skating the other evening and sat down a large portion of the time.

We are sorry to report that Frank Orrell of the Tube Bending Department has been quite ill. Here's hoping for a speedy recovery. The Department looks quite vacant with Frank away.

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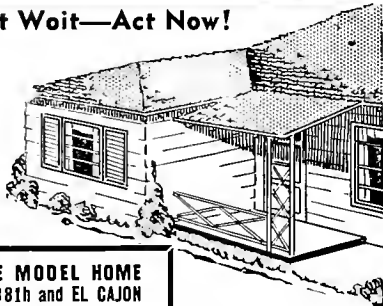
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OUR POLICE IN UNIFORM...

Here they are, our plant police... complete in the brand new uniforms that set them off to full advantage. The local papers requested a picture of the force, and our photographic department was on hand to secure an exclusive picture for the *Consolidator* at the same time. The account in the papers was rather brief but did point out one thing: Our police are here to cooperate and direct a regular city of employees, approximately 10,000 strong. They are well experienced, and with the fine group of employees we now have, the occasions for getting tough will

be few and far between. Our police know the plant from one end to the other and can give a new man a hand... if you're stuck, ask a *Consolidated* "cop"... It's 10 to 1 he can help you.

Seated: Left to right: R. L. Anderson, F. J. Learn, J. Johnston, Capt. G. Roth, Chief G. J. Tompkins, Capt. W. Shattuck, Capt. W. Casey, L. Mitchell, and L. Sevier.

Standing: Left to right, front row: C. Brown, J. J. Morris, A. T. Smith, H. Leech, C. C. Byers, G. D. Brown, G. Bell, P. A. Daggett, H. Blair, E. Jones, F. Thomas, I. Smith, A. R. Wilson, W. Graves, O. Noll, W. Cross.

Back Row, Left to right: J. Ton, O. Kilgore, W. Bean, W. Gates, G. Armitage, J. Markowitz, J. Byrne, J. Stott, C. Irving, J. Leo, P. Frasse, E. Shea, C. Maddox, and T. Bunch.

"Tiny" Paul Campbell, of the Welding Department, is interested in forming a tall hat club composed of members over 6' 2". This will be a club similar to a Los Angeles organization, whose object would be sports, dancing, and good fellowship. The club would be a mixed group with women over 5' 8".

Anyway, it's an idea.

TOOL ROOM TALES

By Pat Paxton

Bob Hyder estimates that if Les Ekberg's height was in proportion to the length of his feet, Les would be eleven feet tall.

Lindsey Bensel has transferred to nights and Jerry Haltzman, who is taking his job chasing parts, is having a tough time locating any small Pratt & Whitney motors.

Charlie Tailer, foreman, and Wheght, welder, made an extensive fishing trip off La Jolla. After a long battle they succeeded in landing quite a catch. There is an argument as to whether the *two* fish were 6 or 7 inches long.

Common Sense is the knack of seeing things as they are, and doing things as they ought to be done.



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PLASTER SPLASHES

By Red Boyle

IF anyone has any need for a tux, just see Bob Gibson. He can borrow one from his girl friend's father, as he did for the opening of the new State Theatre. We've been wondering what there is about a borrowed suit that makes one feel so high and mighty that he won't even recognize his own co-workers.

Frank Phelps refused all offers to take him home. He stated that he was going home on a street car because he could get off at either end.

J. Woodhead came back from his vacation with more than a sunburned head. If you will look closely under that rather large protruding bit of flesh just below his forehead, you will notice a very definite bit of hair. John has abandoned all hope of raising some on his head now.

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A POSTCARD

When a Scotsman sends a card, he expects to get his postage worth! Robert Combe, foreman of Mechanical Maintenance received the following message on a picture postcard from Joe Maloney, nephew of Joe Maloney of the blue print department:

"Hello! Bob, Mac, Gene, Harry, Al, George Claar, George De Marino (How is your Hair, George?), Swede, Tony, Jim Johnson, Stan Marcyan, Roy Schultz, Ott & Lloyd Darling, Frank Webster, Dunkle, Grain, Buono, Jack Kernick, Winkler, Bodenhausen, Delameter, Thrum Davis, Vlery, "Jay" Bowers, "Wimpy," Nesbit, Red Stilgebouer, Frank Westory, Hugh Grammer, Lacey, Nick La Gamma, Bob Norton, Frank Porter, "Cowboy" Morton, "Cy" Perkins, Clyde Vanderheiden, Bert Stringer, Joe Ricco, Dobie, Mel Gibson, Bud Layton, Earl Layton, A. L. Burdett, Charles Berhard Hopson, Homan, Kit Byerley, Furrows, Lindamood, Sam Powell, Covert, Bommarito, Axfon, Hezzy and the 2 other Evans', Willingham, Butch Lawson, Williams, Joe Carroll, Paul Kessler, Snider (hello, Ginsberg), Jimmy Philpott, C. D. Saxon, Fred O'Connell, Coke, Jim Gillis, Tarvin, Frank Watters, Hart, Metivier, Lank Steuermann, Lum Morrow, Bert Dorsey, "Happy" Templeton, "Red" Robertson, Larry Robinson, L. G. Robinson, "Bill" on the lathe, George Mueller, Vern Sharp, Archie Bauer, Erickson, Barth, Wensman, Ted Ellis, Bob Biddle, Ted Stark, John Dale, Hank Fink, Al Richart, Warren Whittman, "Red" McIntey, Chuck Reddien, Monroe Jones, Dan Tobin, Frank Jenkins, and all the rest of you Guys:

"How is the Maintenance gang getting along? I am working as much (or as little) as ever, but I'm not getting paid for it. This certainly a wonderful school up here, but when it gets cold and rains, I would still like to be back in sunny San Diego.

Best Regards to you all,

Joe Maloney."

The rest of the message was too personal to print in the *Consolidator*.

THEY SNOOP TO CONQUER

Inspectors are men who can boss a boss
And throw Production for a loss,
But still they've got to put across.
Poor Inspectors!

If on the job there is a doubt,
Who comes along to dope it out?
Who doesn't mind his neck stuck out?
Our brave Inspectors!

When parts get in their well-worn hair
And a rivet's here when it should be there;
Who works around and makes them square?
Lo, the Inspectors!

Seems as though they're in your way,
But in the end they make it pay;
They put those bombers up to stay,
Good Old Inspectors!

—Lee Holman Shakespeare
(From Boeing News)

FINAL ASSEMBLY

By Speed Gilchrist

Mr. and Mrs. E. J. Farnum welcomed John W. Farnum at 11:53 on Friday the Thirteenth. John weighed in at 7 pounds.

SEEN AND HEARD,

HERE AND THERE

"Ding Dong" Bell, Wally Brown and Don Webb "waiting for a street car" at the plaza one night . . .

A traffic jam in front of *Consolidated* at 5:45 . . . any day . . .

Ten Hours a day keeps the wolf away.

Fort Knox, Kentucky, is worth its weight in gold.

The people who crowded the stadium during the convention to see the U. S. Marines in action didn't see much. They turned off the lights. The Marines aren't giving out any secrets of success.

Don Kessler explaining to interested and amused painters the brief history of his home-made oil heater. A blitzkrieg hit it.

After requesting the boys of the department to send in some news and photos for this column, I was deluged with nothing, nothing at all.

A nippy feeling in the air the other evening reminded me of ducks heading south, top coats, brown leaves, and football games, so near and yet so far away.



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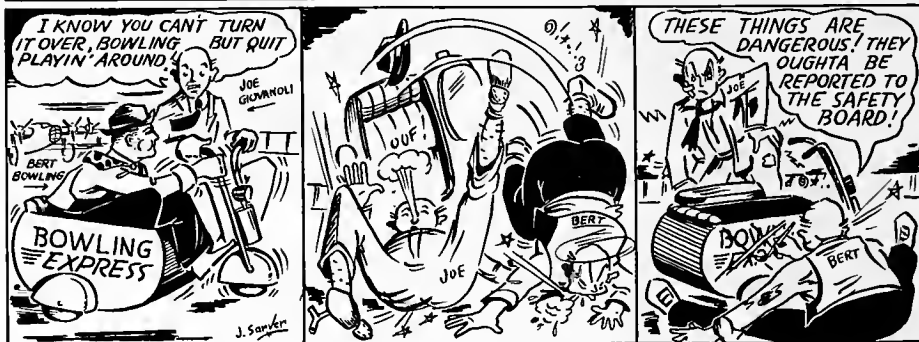
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SEEN' THINGS

JUST PLAYBOYS !!

By: J. Sarver & Al Griffith



SPORT CASTING

By Matt Wielopolski

SEPTEMBER is the most interesting month in sports on the entire calendar. We find baseball entering its finale as the pennant hopes in the major leagues rise and fall with eventual production of individual champions. Which goes to show those who have attended the Consair All-Star-Consolidated Reddy Kilowatts softball game, what the boys can do on the diamond. Vincent Gilmore's fine play on first base kept his young brother, Le Roy, on the bench. Chuck Walker's one measly swing in three times at bat. Craig Clark's fine description of the players' characteristics; but, I believe that Joe Horowitz's announcing showed favoritism to the Gas House gang. Well, anyway, we lost a tight game, and that on an error.

Geo. Wire and Joe Drozd still think that the night hull can beat the day hull team any time, place or way.

The night crew, bowling under the supervision of a fine bowler, Dick Emerick, opened their league by bowling Monday

afternoons at Sunshine. The initial standing show the Machine Shop and Sheet Metal teams tied at the top with a strong Hull closely behind.

During the past month all team captains have been meeting with Tom Coughlin, awaiting the word "go." And they certainly went to town; did they bowl? And how! Balls in the gutters and pins in the pits; and every so often a 4-5, 2-6, and 7-10 splits. Still—

For years they've bowled—but even so, Their average score is sorta low.

Their arms are strong enough, but still Those cussed pins they cannot spill.

"The first time I ever held a tennis racquet in my hand and took a poke at a ball it ended disastrously; but look at me now," says Homer Shayler, Consair Tennis Champ. Two weeks ago Mr. Shayler teamed with Mr. Sjoblom won the doubles trophy over Messrs. Boyle and Lockwood by scores 6-2, 6-2. Their victory was no easy matter despite the low score.

Best performance of this year's tennis tourney occurred in the consolation finals doubles play. When Bishop-Hudson duo took on the strong McClarren-Wimer combination, it was nip and tuck plus

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"never say die" type of tennis. To win the medals, Bishop and Hudson lost a heart breaking first set by a 5-7 score, with one down, they fought to take the long second set, 14-12. The final set at 7-5 conquered the seeded team.



TOOL DESIGN TIDBITS

By Maguire

DON'T know just what it is but Dan Cupid has been working overtime in Tool Design. "Here comes the bride" was played for the following: On August 31st at St. Joseph's Church, L. A., Miss Zena Marie Rinald of Kellogg, Idaho. (Educated Idaho Normal, University of Washington, Central College of Ellensburg, Wash.) to S. H. Parsons, Jr. (He was learned at the University of Calif. and University of Alabama)—They're at home, 4331 41st. St.—Parsons drives one of those baby Austins. Understand he is in the market for a larger car. Also Miss Maxine Logan of Chicago, Ill., to W. R. Goldfine of Chicago, Ill. and Armour Inst. of Tech. on Sept. 18, 1940. At home to friends at 4033 Park Blvd.

The blue print files tell us our column contains "dangling particples"—have we been insulted?

Marcella Holzman is back from her vacation without the usual sun tan or big fish stories. Can't understand it.

New in the dept. this month: Ralph Oversmith, our new Chief Tool Designer from Bell Aircraft. He's really an old-timer at *Consair*. Having gone east from here and then back again. He's a golfer, boys, so step up. Also L. P. Gorsline, J. H. Dannan, N. Pasturzak, H. H. Stronzisky, J. M. Noel. (Sounds like a Notre Dame football team.)

HEARD ABOUT THE HULL

By Bill Pettit

IN spite of the fact that most of the Hull man's time is spent at the factory, they still find time to take time off to get married. Such was the case of Johnny Glenn, on the bottoms, and Leonard King, rivet leader on PBY's.

"Wonder of Wonders"—Al Leonard sometimes called "Gabby" by his friends was caught actually doing a bit of manual labor. Glenn Hotchkiss on returning from Hull 2 found "Gabby" unloading a cart full of bumping blocks for the Hull crib. (Mr. Hotchkiss has recovered and is doing nicely.)

"King Among Men" as far as domestic life goes, is Loren Chaplin. "King", always modern and streamline in his ideas, is installing a cement lawn at his new home at Mission Beach. "Why?" So that Loren, Jr. may roam the grounds with his new tri-cycle. Pretty nice, eh, Junior?

Time Marches On! Here it is nearly the end of 1940, and time for the *Consair* Bowling Teams to go into action. A big threat to the Kegling crowd this year will be Tommy Johnson, basketball, golf and "boxing star." The young assembler's friends are betting that Tommy will average 170 at the end of the year.

"Defeat has such a bitter taste!" Such were the words of Fred Smith, handsome young dispatcher for the Hull. It seems that one night (week nite) after trying for two hours to make an impression on an old flame of his, who was working in a malt shop at the time, the young lady finally let "Freddie Boy" in on a little secret. She had been married for two years!

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CONSAIR FLYERS CLUB, INC., NEWS

By M. H.

DURING the last month we have welcomed to our club Al Gomez, who builds those swell flying models, including the two-motored PBY and an autogyro with a patented hinge arrangement of his own; Stan Mahoney, who, with eight hours solo in a 40 H.P. Cub upon entering the Club, was highly enthused with the performance of the 50; and Maxine Hubbard, who, after bragging for two years that she'd soloed now is forced to admit she must have forgotten how she did it.

Two new privates are now hopping passengers at the field in the form of Steve Brown and Miles Blaine. Poor Steve's face got longer and longer as more and more members arrived for meeting the night he bought the beer. Orve Hubbard received his coveted instructor's re-rating and has left us to instruct at the San Diego Flying Club. His former position of Operations Manager is being filled by Maxine Hubbard with assistance from Miles Blaine and Steve Brown. Barney Farley plans to go up for his private next week so he should have his license by the time this appears in print.

Solo students for the month include Mr. Martin and Mr. Kastalahn (you can't say one without the other—they're inseparable).

If you haven't seen the Chula Vista

Airport (where we're located) since all the grading has been done on it—you've missed something. A new runway has been cut into the wind. Follow Highway 101 to about two blocks past the big Chula Vista turn-off sign, and turn right toward the bay to one of the best airports around San Diego now. That's the Chula Vista Airport, home of *Consair Flyers' Club, Inc.*, where we fly with a re-rated instructor, Lew Loyko.



Paul Herron of the L. A. A. C. set a new record for the Annual Donald Novis swim around Balboa Island when he negotiated the 2¼ mile course in 53 minutes. Walter Stewart of San Diego came in second in 56 minutes 43.7 seconds. Francis Powers was third in 57 minutes 54.3 seconds.

An astonishing feat was turned in by John Woodhead, Sr., 58 years old (and an employee of *Consolidated*) who encircled the island in 89 minutes.

Mr. Woodhead says, "If I can get six or more swimmers to swim with me, any Sunday to be arranged, from Mission Beach to Ocean Beach, I will supply 1st, 2nd and 3rd place medals to the first three. I'm sure the Mission Beach Life Guards will cooperate. The swim may blaze a trail for future competition along this course, and put a Consair swim team on the map. I take a regular Sunday workout at Ocean Beach all through the winter. The water is OK when you get used to it. I would be very glad to have some join me."

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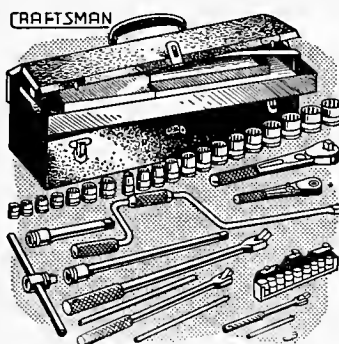
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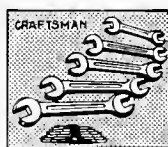


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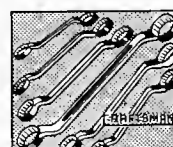
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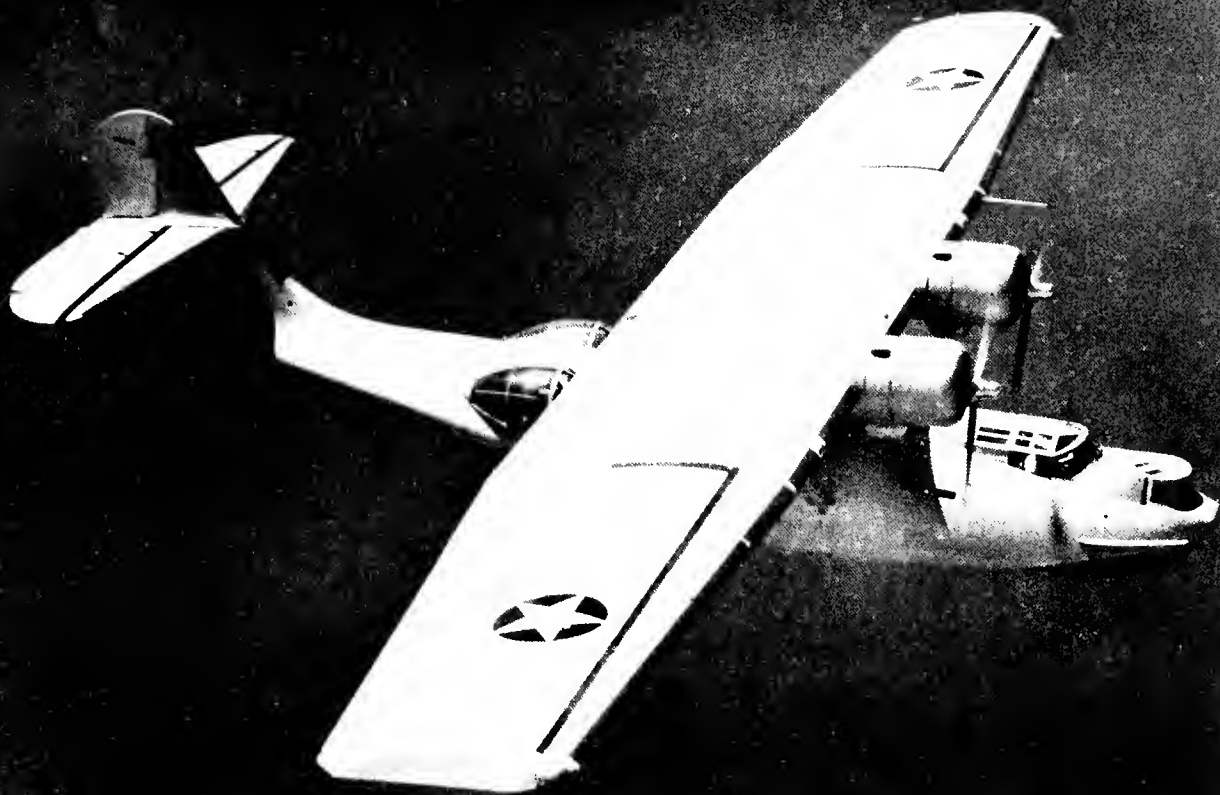
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CONSOLIDATOR

Volume 5

November, 1940

Number 11

SAFETY FIRST . . .

By J. R. McDonald,
Safety Supervisor

We wish to impress upon each of the many new employees who have become one of us, just what is being done to make for safe working conditions.

The Workmen's Safety Committee has long been our best contact with you. This committee is composed of fellow workers, one from each department, with the exception of the Wing and Hull Departments, which have two members each. The Committee meets each month and submits suggestions relative to conditions in the respective departments. Many of these suggestions are received from fellow workers. A discussion of the various recommendations received is made at the meetings, and those deemed of the greatest practical safety value to the greatest number are given first consideration. Some of the suggestions received are impractical to carry out at once due to our rapid expansion, but all are given consideration. Those not given immediate attention are kept on file to be brought before the committee again. Therefore, do not become discouraged if your particular suggestion is not carried out at once. Continue letting us know your ideas on safer working conditions.

Another function of the Safety committee is the investigation of all accidents of a serious nature. When an employee comes to the First Aid Station with an injury severe enough to require the services of a physician, a report is made and the department member of the committee, together with the Safety Supervisor, check into the cause of the accident. This often prevents a recurrence of a similar injury, which, of course, is the aim of our committee.

Work carefully and you will work safely.

Dale Johnson of Loft and the former Miss Jean Macklin of Litchfield, Minn., were married in Oakland, Calif., Oct. 19.

SPECIAL CHRISTMAS CONSOLIDATOR . . .

UNDER preparation for some time and now being rushed to completion is a big special issue of the *Consolidator* which will appear the fore part of December. This is an extra special Christmas number which will be devoted to a series of timely and highly informative articles by an array of our leading executives together with an exceptional group of outstanding persons outside our organization including Major General H. H. Arnold, chief of air corps; Rear Admiral J. H. Towers, U.S.N.; Jacqueline Cochran, well known aviatrix; Richard Archbold, research associate of the American Museum of Natural History . . . all in all a sparkling issue of more than 100 pages . . . watch for it!

VISITORS . . .

On Thursday, October 17, twenty-one members of the Export Department of the Aeronautical Chamber of Commerce of America inspected *Consolidated's* factory. The members are:

Carl I. Friedlander and James A. Weagle, Aeronautical Corporation of America; W. J. Blanchard, Aeroproducts Div. (General Motors); Robert R. Barr, Barr Shipping Co.; R. W. Leedom, B. G. Corporation; J. S. Allard and Charles I. Morton, Curtiss-Wright Corporation; Carl H. Dolan, Intercontinent Corporation; J. Story Smith, Jacobs Aircraft Engine Company; J. Caden Jenkins and Ferris M. Smith, Lockheed Aircraft Corporation; R. J. McGivney, Lycoming Div.; H. W. Flickinger, Republic Aviation Corporation; Robert B. Lea and S. W. Bedell, Sperry Gyroscope Company; C. G. Taylor, Taylorcraft Aviation Corporation; Arthur B. Christie, United Aircraft Corporation; William H. Klenke, Jr., Vultee Aircraft, Inc.; I. H. Taylor, Export Manager, and Don Wiley, Aeronautical Chamber of Commerce; and P. R. Mattix, U. S. Department of Commerce.

COMMUNITY CHEST . . .

CONSOLIDATED this year subscribed to the San Diego Community Chest a total amount equal to 153% of the quota set, and as a result the Red Feather Award was bestowed. This award states, "Those affiliated with *Consolidated Aircraft Corporation* are deserving of the sincere appreciation of all San Diego Citizens for their splendid generosity in the campaign of 1940-41."

In a letter addressed to Major Fleet, from the Community Chest General Chairman Arthur M. Shoven, and Chest President Raymond M. Wansley, Major Fleet, Edgar Gott, C. T. Leigh and John Blakely were personally thanked for their part in directing the work of the campaign in the plant and the fine co-operation secured from all members of *Consolidated* was acknowledged with appreciation.

VOCATIONAL HIGH STEPS INTO HIGH . . .

THE San Diego Vocational High School on October 15th has enrolled in its aviation classes some 541 persons and is geared to turn out about 100 persons per week, who will be absorbed quickly by the industry locally, it is reported.

According to word received as this goes to press the new Aviation Building has been approved by the School Board and the ground will have been broken for its construction as this appears. A few openings are reported in classes in Sheet Metal, Blueprint reading, Industrial Math., Mechanical Drawing and Machine design, and an additional night class in Tool Design is being formed with W. Kline of *Consolidated's* Tool Design department as instructor.

WEDDING . . .

Another knot was tied October 20. Mr. Paul Cornford of the PBY riveting gang was married to Miss Eleanor Crosby. We wish them both all the happiness that can be had.

—Albert C. Baily.

FACTS ABOUT THE FEMMES

or

"Matrimonial Column No. 1"

ONE would think this is the middle of June by the way wedding surprises are pouring in.

News of a shiny ring on Estelle Smith's finger sent me scurrying to her office for the low-down. The bridegroom-to-be is Don C. Eby of the Experimental Department, and the event is scheduled to take place after the first of the year. Bertha Kuschke of the Purchasing Department became Mrs. Rhodes J. Peel in Yuma on Sunday, October 6. They were accompanied by Mr. and Mrs. Wesley Post. Another *Consolidator* to receive best wishes is Mrs. Jim Ashley, formerly Cedelia Roberts, of our Planning Department. Cedelia took the fatal leap in Yuma on Saturday, October 12. Eleanor Helms of Accounting and Theron Reid were married on October 12 and are "at home" to friends at 4626 Louisiana Street.

On Monday, October 14, some of the girls met for luncheon at Newton's Res-

taurant to bid farewell to Ruth Sears, and also to celebrate Bertha Kuschke's new name. The two guests of honor were each presented with a gift from their *Consolidated* friends, along with the heartiest of good wishes and the best of luck. Ruth will be married to Eddie Spreen on October 26, and will leave our Purchasing Department to take up a more domestic life in Coronado. 'Tis clear that the Purchasing Department is running Mr. Learman's office a close second for top honors with the love bug.

Know some more heart throbs but haven't got a final release on them—yet.

Mr. and Mrs. Frank Thompson announce the birth of a son, David Charles, on October 12 at Quintard Hospital—so the fellows in the Engineering Department had better line up at Frank's desk for cigars.

Thanks to Virginia Garland for the following personnel goings-on.

Our sincere condolences to Arvella Dickey because of the recent death of her father. We sympathize with her very deeply because we know how much she adored him.

Most girls need vacations after their vacations, but Lois Propps, our Southern Belle, just took it easy and had a nice restful week at home.

Eileen Currier is all upset because her "Eddy" has to go to Hawaii with the National Guard. Now she'll have to watch someone else win a Prize Waltz for a change 'cause with half the team gone, the rest of us will have a chance, maybe.

September 19 was Gracie Seybert's birthday and the girls in the office got together and bought her a compact. Not an ordinary one, but in the shape of a cue ball with the figure 8 on the top. Gracie is always raving about being behind the 8-ball so it was quite appropriate and gave everyone a good laugh.

October 12 was Rosa Wilson's birth-

day and the girls presented her with a slinky gold cigarette case. It's out of our hands now—she'll have to keep it polished herself.

Have you noticed how our office has grown? We have 20 girls on the day shift and almost that many again at night. Some change from the little shack that used to be the Personnel Office, huh?



PARKING PROBLEMS

By Wm. A. Maloney, Plant Engineer

FOR some time past it has been the practice for members of the night shift to make use of the reserved parking spaces. Under the present intensive program with so many of the executives for whom the spaces are reserved returning to the plant in the evening, this practice is the cause of serious inconveniences.

The parking situation in the daytime is a problem and it is recognized that a large number of our personnel are not able to find space in the parking lot but are forced to park in the streets and private parking areas within a radius of three or four blocks of the plant. At night time, however, the situation is not so bad, particularly since the starting time for the night shift has been changed to 7:00 p.m., and there is no need for any of the night force occupying reserved spaces. For instance, on the night of October 22 all reserved spaces were filled by cars not authorized to use them and about 40% of the south parking lot was empty. This unoccupied area was in the section of the south parking lot south of the railroad siding. At the north parking lot the same condition prevailed.

All reserved parking spaces are being provided with warning signs notifying the night forces that these spaces are not for their use.

If everyone will cooperate in observing these warnings it will relieve the Plant Police and the Maintenance Department of the necessity of policing the parking area during starting and quitting periods.



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THE DEER HUNT

EVERY SEPTEMBER

By Mrs. Raymond Kendall

This is the story of three men who went to hunt some deer,
They had picked the High Sierras as the place to hunt this year.
They packed the car with blankets, canteens, beans and hash,
They filled it with so darn much junk you couldn't see the dash.

When this was done, they started off, at 2 A.M.,
I'd say
To drive all night to reach the place before the opening day.
As soon as they got to the spot, they took a little hike
To look the country over just to see what it was like.

Meanwhile, the girls unpacked the guns, the blankets and the beans,
The cameras, tents, and gas-stove, the lamp and the canteens.
They carried loads of firewood and chopped it with the axe,
While the boys sat by the fire and talked about deer tracks.

At dawn they shivered into clothes and started on their way
For a guy must be out early to succeed on opening day.
The girls put on their coats and gloves and went for atmosphere
By eight o'clock one girl came back—lugging in her deer.

That night some gloomy faces were around the fireside,
Except the face of Cora, and of course she beamed with pride.
They said how small the deer was—just a peanut as for size,
Well, we'll shoot one tomorrow that will open up their eyes.

But every night at sundown, their hearts were filled with sorrow
We didn't do so well, said Glenn, but we'll give 'em hell tomorrow!
All the hunting days slipped past, tomorrows came and went
And the only deer was Cora's when they folded up the tent.

The return trip was a quiet one, none had a word to say
For they knew a ribbing was in store for them at work next day.
Now they've got a dandy place picked out where they will hunt next year
But they're going to leave the girls at home when they go after deer!

"Well," said the golfer, "what do you think of my game?"

"I suppose it's all right," replied the caddie, "but I still prefer golf."

A & NITE NEWS

By Ed deForest

CONGRATULATIONS and all that are in order for our genial night foreman, Chuck Innes, on the birth of his first son, Michael Frederick, at Mercy Hospital on September 30th. Michael, who weighed seven pounds, nine ounces at birth, and his mother are doing exceedingly well.

Felicitations are also being showered on a new groom, Herman Hagman. Herman and the former Miss Lucille Coyle were married in Yuma, Arizona recently.

Bob Angel's ranch out Palomar way has been the mecca of late for all our would-be deer hunters. Several of them have tried hard but, alas, each has returned luckless and buck-less. Perhaps the most interesting tale is told of the foray of Frank "Rattlesnake Pete" O'Connor, of the day crew. Frank, heavily armed with a rifle in one hand and a hunk of "Irish confetti" in the other, spent a hectic day in a fruitless search for rattlesnakes and deer (chiefly the former). And was he vivid in that white outfit!

P. S.—Yours truly is also proud and happy to announce that on the night of August 31, Miss Aileen Helen Sanderson became Mrs. deForest. Needless to say, we are both very happy.



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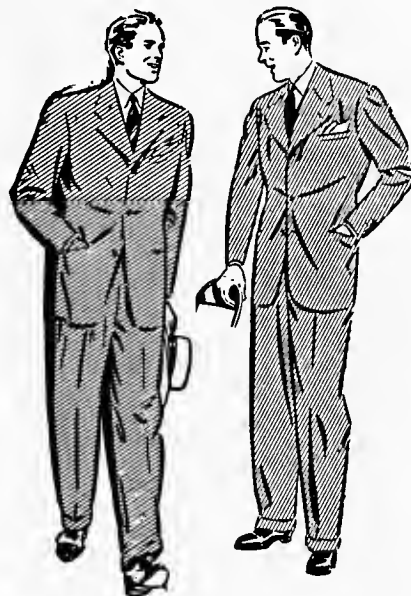
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SAN DIEGO



Water Conservation and Distribution

By Fred D. Pyle,
Hydraulic Engineer

THE concrete plug was placed in the bypass tunnel of El Capitan Dam in December, 1934, and the water commenced to accumulate in the reservoir basin behind the dam, and once again in the history of the City there was assurance of an ample supply of water.

Each reservoir—Otay, Morena, Barrett, Hodges, El Capitan—as purchased or constructed, has added its increment to the yield of water and has built up the safe yield of the City's system from 8.3 million gallons a day in 1920 when there was a population of 75,000 to the present 26.6 m. g. d. This is sufficient water, based on runoff records of many years and taking into account evaporation losses and use, for about 213,000 people. One m.g.d. is required for each 8,000 people.

The population has steadily increased until the last census shows over 202,000, which requires 25.2 m.g.d with every indication of more increase in both population and water use in the next five years than during the last five years.

In February, 1937 a Consulting Board reported to the City on local water development and the ultimate need for water

from the Colorado River. This report was reviewed by a Fact Finding Committee, which reported as follows:

"We find that of the several local sources of supply to be developed, the construction of a dam at San Vicente should be commenced as the first unit of local development to follow the execution of the All-American Canal contract. Some of the facts upon which we base our adoption of San Vicente as the first unit of local construction are: It has always been an approved unit of all plans and proposals for local development, its capital cost is low as compared with other projects and within the City's present financial ability to construct, the City already owns the dam and reservoir sites and holds a clear title to the water rights, * * *

The above report was signed by:

Arthur H. Marston, Rufus Choate, Robt. R. Hamilton, Albert J. Lee, Geo. Stephan, Don M. Stewart, A. J. Cohn, Hal G. Hotchkiss, F. A. Heilbron, John G. Clark.

The San Vicente reservoir basin is the most effective, long-time storage reservoir in San Diego County due to flat bottom, steep side slopes, small area exposed to evaporation and large storage capacity.

The reservoir formed will conserve the runoff of San Vicente Creek and water transferred from El Capitan through the pipe line. It will produce a safe yield of 5.3 m.g.d. or enough for more than 40,000 additional people.

The designs of the dam were completed last year and provide for a 190-foot concrete dam, constructed in such a way that it can be heightened to 275 or 310 feet when needed. The dam will store nearly 25 billion gallons of water, and ultimately 73.6 billion gallons.

The estimated cost of the project, including dam, relocation of State highway and construction of a pipe line connecting to the El Capitan pipe line, is \$3,550,000, of which \$550,000 can be used from the Sutherland Bond Fund which will



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leave \$3,000,000 to be provided by bond issue.

The last large distribution mains, except for the Upas Street pipe line installed last winter, were installed in 1916 when the population was only 60,000. With more than 200,000 people to serve, more mains are necessary in order to deliver the water required by the users at adequate pressures.

During the past few years the pressures in many areas have been so low that during the afternoons and evenings in the season of heavy use, water would not flow out of the fixtures on the second floor of many homes. The maximum daily demand for water reached an all-time peak on August 5, with a use of 35.0 m.g.d. A number of people were short of water and if the main pipe lines had been of ample size the peak might have been 36 or 37 million gallons.

More water used means more revenue for the City with which to accomplish work.

The City has grown until there is now only about 12 hours storage supply at University Heights reservoir when it is full. In event of major fires or accidents to pipe lines leading into the City this would be inadequate.

The City owns storage space in Murray Reservoir to the extent of 1,625,000,000 gallons. It is proposed to connect Murray reservoir to El Capitan pipe line with a new pipe line in order that water from El Capitan reservoir may be stored in Murray reservoir and brought quickly to University Heights reservoir when needed.

The University Heights filter plant was constructed twelve years ago and has a capacity of 16 m.g.d. Last summer unfiltered water had to be bypassed into the City mains during the days of peak use. It is proposed to increase the capacity of

this filter plant 50% and to make additional provision for treating the water before it goes to the filters.

The estimated cost of the additional distribution mains, connecting mains and water treatment is \$1,300,000.

Interest rates are low. Last year the City, thanks to the efforts of the Junior Chamber of Commerce, refinanced a \$2,600,000 contract drawing 6% interest with a bond issue of the same size and payment period with sale of bonds at an average interest rate of 2.25%.

Maximum daily use of water:

| | | |
|------------|------------|---------------|
| 1937 | 29,600,000 | gallons |
| 1938 | 29,900,000 | " |
| 1939 | 32,500,000 | " |
| 1940 | 35,771,000 | " on July 11. |

Consumption of water in July, August and September, 1940 was 20% greater than in the corresponding months in 1939.

From May 1, 1940 to October 1, 1940, water in storage in City reservoirs decreased 13 billion gallons, due to withdrawals for use and evaporation losses.

To place even the distribution and filter improvements on the next two budgets would not only delay them but would greatly increase the tax rate.

During the six years the debt of the Water Department has been reduced \$3,600,000. The annual interest has been reduced \$180,000, and the water sales have increased \$260,000.

The cost of the two bond issues totaling \$4,300,000 on basis of 3% interest and 30-year redemption period will be about \$270,000 for the first year after bonds are issued, which is only a little more than the increase in water sales during the past six years. There is every indication that

(Continued on next page)

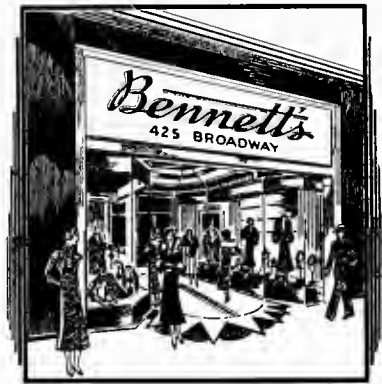
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WATER CONSERVATION

(Continued from previous page)

the water sales will increase materially during the next two years and that the tax rate will be effected but little after the first two years.

The voters will have before them on November 5, 1940 two issues of vital importance to the future well-being of the City. Proposition No. 1 for \$1,300,000 for distribution mains and improvements and Proposition No. 2 for \$3,000,000 for the San Vicente Project.

Attention is called to the fact that two-thirds of those voting on each proposition must be favorable in order that each proposition carries.

HOT SHOTS FROM WELDING

By Thompson and McAleer

CONGRATULATIONS are in order for C. R. Thompson as he was married on October 12, you know. Lots of luck.

Boys, have no fear, for Safety First is here—with Bud Wilson at the helm. All joking aside, let's really get together and cooperate to make this come true.

Watch your eyes, boys, that red streak is Pete Cinquegrani in his new V8.

"Happy days are here again" in the Kastelic home as his wife and baby are back from the east.

Congratulations are again in order, this

time for Enrico Caliendo, the new nibbling operator, for he is the proud father of a baby girl, born October 10.

We hope to clear up a misunderstanding between Eddie Wilson and his wife. The Welding Department only employs men, and Marion Stokes is our timekeeper.

Paul Campbell, President of the "Stratoliners," (tall man's club) still is in hopes of getting married.

These long, toilsome hours are sure getting Al Jerauld down. He is wasting away to a shadow—a giant shadow.

What we want to know is if Carlo Costantino wears his headgear while driving? The reason we wondered is because of the glare from the shiny hood of that new car.

Bud Wilson says the Bowling team is right on top. Could it be because Benny Keigle is one of the members of the team?



TANK HIGHLIGHTS

By Herthel Chappell

WE ARE glad to report that Les Carr, the fellow who made the unfortunate mistake of getting between doors of the building that were being closed, is back with us again. He has just recuperated from a basic skull fracture.

There's nothing like keeping fit for the night shift, or is there? Price and Prather were spotted about 4:30 a. m. Sunday morning taking the drive-in girls home. Kenneth Cox and girls were caught at Tijuana about 6:30 a. m. Sunday morning, and last, but far from least, our daring gigolo, Ford, was seen at the Copper Kettle desperately trying to waddle through a very wide door. All are regular night owls.

Wedding Bells!

On October 19, Bob Clark took the fatal step. The lucky lady was Dorothy Krape . . . J. C. Wright, Jr. was married on the same date . . . There is another fellow, Raybould, who is impatiently waiting for January to roll around. Good luck to all!

Do you know that:

John Wiley, Tank's prominent bachelor, is spending a lot of his time at the Co-ed drive-in? Kenneth Prather, as a last resort, has turned to buying cookies from the Camp-fire girls? Bill Strunk and family will be nicely settled in new home when this edition is issued? A certain young man who is always starting rumors is known as "false alarm" Darling? Jim Saftig and Jerry Wilson have sold their boats, and are planning on building new ones, which will be made out of ply-wood?



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PRODUCTION PICNIC

By Tex Merry

THE Production picnic at El Monte park September 30. Seems the Production Department has only about twenty people to uphold its honor. Half of them girls. Where is the party spirit? Most of the boys don't even like beer any more. Thanks anyway for a keg to save for our Christmas party.

The ball game was very good for Ray Ruzich who chased fly balls and always stopped for refreshments on the way, but this was spoiled by bad news which caused Johnnie (Life of the Party) Ruzich and Ray to leave. The boys all wish to extend their sympathy at this time.

Sympathy and congrats are due Mr. and Mrs. Chuck Sandlin. The former for missing the picnic, the second for their marriage. May all their troubles be little ones.

We didn't know until last Sunday that bartender Bob Marks was a little tin horn, nor did we realize that Eddie Holms was an imitator or is an imitator imitating Eddie. Anyway, thanks for the entertainment, boys.

Jim O'Rourke's new riding outfit is a dandy, but for the best effect he shouldn't have shown up till after the refreshments ran out. Paul Wilee, the lowly one, should stay this side of the border; plenty has been said. Les Stockton should either bring two girls or see that I stay home. Kel Aiken warned you I'm not responsible.

Bob Marks lost his bet, neither Ed Kopp nor his brother fell off the bar.

Thanks to Lee Torstrup and his wife for furnishing us with the swell music for dancing. Mr. Perry Ogden and his charming wife didn't even dance one dance!

Alice Birse and her sister shore are the best when it comes to teaching longhorns to dance.

Chet Niebrugge had another all-day race with his first little trouble. No wonder he gets around the stockroom so fast.

Harold Tipton didn't get happy till we started home, then because no one would argue with him he argued with himself.

One word in my defense—Last month Mr. Aiken said my job of umpiring at the stockroom picnic was rotten. What I want to know is, "Do you know anyone else who could umpire and live through it?"

Mr. Jack Mulroy was a spectator at everything but the bar. He knows which side of his bread is buttered.

The girls at the Junior Ad Club picnic next door spurred some of our flowers in knightly armor to great things, but Harold Tipton is still kicking himself for not getting the girl's name anyway.

The real success of the picnic lies in the hands of Jack Gott, who arranged everything to the complete satisfaction of everybody. Then there was: Alice Vincent working hard at snapping pictures that didn't come out . . . Gracie Koenig popping up all over the place . . . Hazel Robertson imitating "Madame La Zonga" . . . Columnist Bradshaw who wasn't going to show up . . . "Tuffy" Bennett doing her share with a lard can . . . Mary Jane Upton and Lois Campbell trying to supply lunches for everyone—whether they brought their own or not . . . "Bags" Forsman and brother Harry doing their best to rival the Kopp brothers at the bar.

METAL BENCH NEWS

By B. Pobl

Cowboy O'Neal has given toward the finer things in life. It is reported that he was quite taken with—those lessons from Madame Lazonga. And too, his heart has been pierced by Dan Cupid's arrow.

Henry Doerr has just returned from his vacation. He was just a little smarter than most people; he stayed home and had a nice, long rest and saved his vacation money.

If Paul Langdon's ambition holds out the night shift at Metal Bench will be represented in this season's basketball tournament.

feature group of costly-looking ties

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. . . another value scoop! Ties you'd swear were far higher in price than this special marking! Of fine-quality silks, satins, twill stripes, and silk-and-wool poplins. Hand cut and tailored with "resilient" construction details. They're values at \$1!

men's shop—street floor

MARSTON'S

PLANT POLICE NOTES

By Frank H. Thomas

Bill Graves giving a seagull H-1 one quiet Sabbath morning until he spied a painter . . . Kilgore as nervous as a draftee, over his second trip to the altar and eating Henneuse's lunch by mistake . . . Stott being quizzed by prospective members in re. his glee club . . . Capt. Roth and Doc Learn on the "Fire" line at the recent exhibition . . . Markowitz with plenty of salt and pepper for Bean . . . Our personnel in receipt of fine leather jackets (silk lined) and one member adding paper fore and aft . . . Sterrett being interviewed by Chamber of Commerce



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officials (takes a dip in the Pacific out Del Mar way every a. m.) . . . Ivan Smith to build out El Cajon way and Gil Harris selling his acres for a cabana at the Beach . . . Capt. Shattuck spending his vacation in town . . . Bill Bean will improve life out Ocean Beach way during his leisure time . . . Andy Anderson cleaned up on the World Series . . . Bill Graves causing no little concern at No. 1 gate over his handle-grabbing antics . . . The Under-Secretary of the Navy with a baseball-minded chauffeur who aired the World Series during his stay . . . "Our Oleo, 1941 style" . . . Cross being dubbed "Wild Will Hickup" after some early morning jumping . . . Leo bluing about his car—plenty of get up, but very little "pick-up" . . . Stott a fashion plate until he removes his hat . . . Shea putting on a Sally Rand dance with a Ben Turpin effect . . . the A'mers donning dark glasses to welcome the sunrise . . . Big Ton (250 lbs.) emulating the way of eviction when he was the "Scourge of Broadway" . . . Mitchell, a take-off for a good owl any morning . . . Larry Sevier with his Wheatie smile makes the night shift look easy . . . Our tug of war team, Ton (250 lbs) at one end, Leo (300 lbs.) at the other, an average of 225 lbs. for our ten men . . . along with the Browns and Smiths we now have two Graves, "Colorado Bill" and "Arizona Ed" . . . Harris shooting for cash over Yuma way.

Please Note: Don Irwin, in charge of Lost and Found Dept., in the Chief's of-

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fice.—Capt. Shankland of the Fire Dept. reports numerous trash barrel fires; watch where you throw your cigarettes.

"Round the Bull's Eye:"

Rollberg slowly recovering from one of those big "all-day" cigars . . . Fox having fog trouble on his way from Oceanside . . . McGee not at all like the one on the Radio . . . Frasse eating at the Chuck Wagon on his day off . . . Armitage and Harris making a jawbone bet over a .38 . . . Ruden with a perfect fit (he formerly worked at Brooks) . . . Eddy with a ready smile . . . Dietrick finding it hard to give up his brown jacket . . . Divelbess immune to pronunciations of his moniker . . . Jehorek and Thomas with poker licenses 4 3's and 5 7's . . . Folsom and Booth right at home with our 'Frisco fog of late . . . Apple, as polished as a judge handing out temporary badges . . . Leech and Sawyer getting tanned at No. 5 . . . and new members—Almon and Henry.

DEAD CENTER

Something that's driving the Plant Police gray—Is constantly changing from nite to day, And when they get used to it, and find it all right

Then they have to change back from day to night. Of course they don't mind—it's just part of the game,

But the scenery around here is never the same
Ain't it a shame.



The old, doing the new . . .

Curtis May of Final Assembly has one of the oldest tools, and employs it for one of the latest additions to modern airplanes. It's one of those revolving hand leather punches that resemble a Spanish Spur, and he uses it for punching holes . . . in the de-icer boots!



One night we saw a plant police running around one of the PB2Y-2 ships in a very excited condition. Asked what was wrong, he said "Listen, I hear a time bomb." So, the bomb hunters increased in number until they came up to G. Spleen, working away on a floor structure. They asked him if he heard a ticking. He said "Sure" and pulled out a spanking brand new Ingersoll and admitted "I don't intend to be working on my dinner hours no more."

H. Roesse.

One thinks of Good Foods
at Thanksgiving Time.

So...one naturally

thinks of

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MACHINE OIL

By Al Pfeiffer

ONE young enthusiast boldly predicts the use of roller skates for all drill press operators, and it will disappoint Art Seeman if they don't upholster the control handles on that milling machine.

After humming sweet madrigals into the ears of that charming young lady, Art Woods finally won her hand in marriage. Ah, such technique!

Dick Frauenfelder (is that the way it's spelled?) is another deserter from the bachelors' ranks. The girl, Mary Theis, is also of that great little town called Granite City, way back in Illinois. Best of luck to our newlyweds.

This month's prize winner is a mental picture of Don Benson struggling with a paper punch. Leadman on the turret lathes and master of many intricate machine set-ups, his efforts with the adjustable stops on the punch met with little success.

Eppich and Pagliuso's pretense at feuding is just a gag. At heart they are the best of friends.

The alias applied to a machined part by machinists is a wing fitting they call the "daggers." Found on the back of one of the operators' time slips was this bit of doggerel:

The boy stood on the slippery deck,
Milling "daggers" by the peck
The oil dripped from off his very chin,
Did he stop? No, still he clamped them in.
—Anon.

Story of the month: He wasn't the type to hold a grudge but—. On a recent hunting trip one of the boys decided to give his store teeth a rest. So he deposited them in the pocket of his jacket and threw it onto the back seat of the car. The ride home was quite uncomfortable for a certain young fellow who still bears teeth marks in the posterior region of his anatomy. Jim Patton stoutly maintains that it was purely accidental. "Not so," says Joe Frichtel.

For health's sake, do not exceed the feed limit.

TUBE BENDING

By Hart

CURTIS (Cowboy) Franklin has just bought himself a ranch out in Spring Valley. If O. Key can keep winning ducks at the County Fair maybe he can get the ranch stocked up yet.

It has been rumored about that Thomas Badgett is headed for the altar soon. Congratulations, Tommy.

According to Jimmy Neice, if any of you fellows want a real treat, drop around to Clyde Hammett's house and try some of his wife's banana cake.

From the way Vincent Anderson looks, after receiving one of "her" letters, she must have said yes.

And from the Night Crew:

We pause here to remark that after looking at some pictures in a certain billfold, we are left with little doubt as to why Vercill Loofborenow (18108) treks back to Pomona every week end.

Robert Bryden (18089) spent most of the week wondering when he could raise enough money to send for his wife. He left for home one morning after work and found his wife waiting for him.

By the time this issue of the *Consolidator* goes to press Clarence Garrison (18098) will have met (she is coming out) and married his sweetheart from Arkansas.

Stepping out we would say! Danny Whorton (18027) and his new Dodge along about Christmas. Quite a step, too, from a '28 Chev to a '41 Dodge.

Our hopes for a duck dinner in the near future were shattered at the announcement of the death of Donald Duckling, age 1 week, at the home of Owen Key (18021), one morning at 4 a. m. (He won the duck at the County Fair for one cent.)

Congratulations Charles Casey (18069). We hear you and Frances Ryan journeyed to Yuma October 7 and were married.

Reputation is what we seem; character is what we are. A good reputation can be purchased, can be acquired overnight, and can be destroyed entirely in the same space of time. But good character is that priceless thing—built, not bought; it endures. It evolves slowly, through years of time. Evolves out of rich achievement and out of fine works. More than a mere stamp of approval, good character is time's acceptance. No. 8206.

When prize fighters lower their guards they usually get socked. When you fail to use guards on machines, you're liable to go out for a long count.



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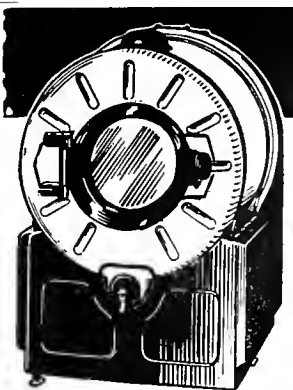
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NIGHT WOODSHOP NEWS

By W. Lloyd Purser

OUR vacationists are safely home and glowing with reports of the places they had been. Mr. Pitts visited 'Frisco, his old home town, and enjoyed the fair, especially the lighting effects at night. But, he says, San Diego has the best layout for a fair. Karl Herrman saw the sights at Zion and Grand Canyon. They are unequalled in grandeur to hear him talk!

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Certain gentlemen promised Walt Cook an airplane trip to Yuma if he would gather the necessary courage to pop the question to the little woman. She gave the right answer and became Mrs. Cook. They didn't go by airplane, but Walt did the driving and it was flying without wings.

Introducing Carl Wallace Vogt, son of Mr. and Mrs. Carl Vogt of La Mesa. Mother and son are doing fine.

Mr. and Mrs. H. E. Anderson have decided San Diego is the place for them, so they are buying a home here.

Bill Thomas tells us that the house trailer was too small or something for he has purchased a house near Berg and some of the others. Bill will have to be good, for from his description there are plenty of glass windows.

Mr. Jones (L.S.) decided his baby daughter should not grow up to be an old maid, so he took great pains to teach her to wink. He left her in the car for a few minutes the other night while doing some shopping, and upon his return he found her winking, slowly and tiredly at a blinking neon sign. She has learned her lesson well.



AS I HEARD IT . . .

By Jim Jackson

"Captain" Johnny Hopman—He's listed as such in the Hull basketball set-up—is really fagging the boys in the Hull Dept., Final Assembly. Johnny's lunch, which is mostly luscious grapes and which he leaves at his desk in Hull One, mysteriously disappears nightly, and Johnny, fagged from faggin,' goes hungry. Get wise, Johnny, and watch Wire. P. S.—Those grapes are really good—at least that's the way I heard it.

J. W. Lawry in Finishing Dept. was married in Yuma October 26, 1940. Chas. Bottarini, Mel Giertz, Tony Tramutolo and Art Lathrop all get a round of applause for taking themselves a woman to love, honor and cherish.



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J. E. Dryer
President



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LOFT LINES

By Jimmie Spurgeon

We are told of a wonderland back in the Laguna mountains that holds all the beauties of nature, where man has but to take himself and this fair Utopia yields itself impartially to the deliverance of mortal's earthly cares. In this pine-studded highland there flows a sparkling stream that rivals the 'Fountain of Youth,' judging from the appearance of our own Walter Bayer, the 'bring 'em back alive' explorer of this department. Wally is responsible for finding this play spot and he has gladly shared his discovery with Jimmy Morrow and others of the 'back to nature' bent. You no doubt have noticed the rosy-cheeked complexions of these boys and they will gladly tell you of the 'spirits' they have found up there in those hills that account for their rejuvenated youth. Confidentially, I had an uncle back in the Ozarks of Missouri who was a dealer in these 'spirits' until the revenoors came 'chargin' down the mountain.'

This past month we have seen the transfer of many of our old pals, either to other departments in the plant or to jobs outside. The gang presented Serge Kandrashoff, who left for Frisco, with a big bottle of champagne and he immediately treated with a big box of fine cigars. We didn't give our old buddy, Lew Loyko, any such honor since we can continually show him our friendship by patronizing his new flying service he has established here on this airport. We wish our friends the best of luck.

Joe Davis recently walked up to Coughlin's desk, picked up the receiver of one of the phones, placed it to his ear, and leisurely dialed his number on the other dead phone. Was he surprised to find out, minutes later, that he only had his wires crossed again!

A good argument for safety shoes: A break in your toe may mean a break in your pay.

Wear your goggles or shield while grinding or drilling.

PLASTER SPLASHES

By Red Doyle

E. Otte (D. Morrison's stock chaser) says that the glue sandwiches he ate the other day were the best he ever spit out.

Congratulations to Mr. and Mrs. D. Klinger on the birth of a fine boy.

We are glad to welcome five new fellows to the plaster slingers crew. They are R. Pocock, G. Stauffer, J. Pollard, P. Davis and K. Hill, all from Santa Ana.



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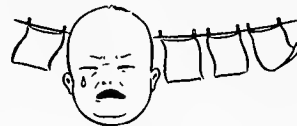


— with Bud Landis

Couple of years ago a young fella of about one summer was greatly pictured in ads and other places.

The kid was yelling his head off, so he got to be known far and wide as the Prince of Wails.

The caption read, "Time to Change," and its significance was punched by showing "his royal harness" fluttering in the background breeze.



The idea behind this parabolic picture was to remind motorists that the only thing that remains constant is change.

Particularly with respect to motor oil. When winter comes, there needs to be a correction in the anointment that goes into a car's crankcase.

There should be a different grade adjusted to fit the thermometer, so bearings and other moving parts won't contract slipping sickness.



We looked up the crybaby and find that he is getting along in years. He's getting along other ways, too.

But we'll use him again just as a reminder that now is the season to drive into a Shell Dealer's Service Station for a crankcase drain and a refill with the proper grade of Golden Shell.

The Station Man will do the job "according to oil," believe us.



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The What and Why of F. H. A.

By WM. O. HARRIS, Production Manager, Southern California District,
Federal Housing Administration

EDITOR'S NOTE: For the opening discussion of this article the reader is referred to the October Consolidator.

TITLE I.

The requirements for Title I, Class 3 mortgage loans provide that the term of the loan may be as long as 15 years; that the amount of the loan may not be in excess of \$2,500; that the borrower have at least 5% equity, either in cash or land invested in the property; that the interest charge may not be in excess of 4½% per annum on the outstanding principal (the mortgage may provide for an annual service charge not in excess of ½ of 1% on outstanding balances)*: that the application be submitted, plans and location approved before construction is started; that the security given be a first mortgage or similar instrument which constitutes a first lien upon a fee simple or leasehold interest in the land and buildings; that the borrower establishes to the satisfaction of the insured lending institution his reasonable ability to pay the obligation.

The mortgage insurance premium on these loans is ½ of 1% per annum on the original principal amount.

The proceeds of a Title I, Class 3 loan must be used for the purpose of financing the construction of improvements which conform with the minimum construction requirements and property standards prescribed by the Administrator. No part of the proceeds of a loan of this character may be used for the purchase of land or for the refinancing of an existing loan. A typical Title I, Class 3 loan:

| | |
|---|---------|
| Estimated value of land and building | \$2,650 |
| Value of land | 150 |
| Cost of house and improvements (maximum loan) | 2,500 |

(*) If loans are made on a discount basis, the financing charges may not exceed an amount equivalent to \$3.50 discount per \$100 original face amount of a 1-year note to be paid in equal monthly installments calculable from the date of the note.

TITLE II.

Title II of the FHA program provides for the insurance of home mortgages not in excess of 80% of the appraised value provided that the mortgage is not in excess of \$16,000; that the interest charge is not over 4½% on outstanding balances and that the subject property meets certain minimum property standards established by the Federal Housing Administration. The mortgage insurance premium on these loans is ½ of 1% per annum on diminishing balances.

This general program applies to refinancing, purchasing and constructing homes, with the two exceptions below:

1. That on single-family owner-occupied homes the loan may be as much as 90% of the FHA appraised value provided that the loan is not in excess of \$5,400 and the application and plans have FHA approval prior to the beginning of construction.

This plan further provides that the term may be as long as 25 years; that the inter-

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term - 5 to 25 years

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BANK

HELP YOUR CONSOLIDATOR—Mention this adv. at the Bank.

est charge may not be over $4\frac{1}{2}\%$ on outstanding balances and that the mortgage insurance premium is $\frac{1}{2}$ of 1% per annum on diminishing balances.

2. That on single-family owner-occupied homes, where a loan is needed in excess of \$5,400 but not in excess of \$8,600, the loan may be up to 90% of the first \$6,000 of appraised value and up to 80% of the balance of appraised value.

This plan provides that the term may be as long as 20 years; that the interest charge be not over $4\frac{1}{2}\%$ on outstanding balances; that the mortgage insurance premium is $\frac{1}{2}$ of 1% per annum on diminishing balances, and that the application and plans have FHA approval prior to the beginning of construction.

In the event that the property in either of the above two plans is not to be owner-occupied, the maximum loan will be 80% of the appraised value and the term of the mortgage may not be in excess of 20 years.

MODERNIZATION LOANS

FHA-insured modernization loans up to \$2,500 are being made by qualified lending institutions in all sections of the country. These loans may be used to repair and improve property; to install certain types of permanent equipment; and to construct certain types of buildings.

Monthly payments may be arranged to suit the buyer, but the seller receives cash payment from the lending institution as soon as the job is completed.

Modernization loans apply to existing structures only or auxiliary buildings to be constructed on the same property, such as an additional garage. This type of loan may be used for repairs to existing structures, including carpentry, roofing, masonry, electrical, and plumbing repairs, etc. Any structural change may be made, such as putting up or removing partitions, building additions, making "new" rooms out of unused space under the roof or

basement space, building porches, sun-parlors, or other additional rooms. One type of building may also be converted into another type. For example, a single-family house could be converted into apartments.

This type of loan may not be used to finance the cost of completing an unfinished structure. It may, however, be used to repair a building damaged (not completely destroyed) by deterioration, fire, flood, or other casualty.

Redecorating, interior and exterior; cabinets, shelves, and other conveniences can be built in. Septic tanks, cesspools, wells, together with pumping equipment, etc., are also eligible. And the ground on which the building stands may be improved by grading, laying walks, building fences, and certain planting.

"Upper or lower berth," inquired the would-be traveler, "what's the difference?"

"Well," replied the ticket agent, "the difference is two dollars. But that is not all. The lower is higher than the upper one. The higher price is for the lower. If you want it lower, you have to go higher. We sell the upper lower than the lower. Most people don't like the upper, although it's lower on account of being higher. When you occupy an upper you go up to bed and get down to get up."—Wall Street Journal.

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(Employer to newly-hired typist):
"Now I hope you thoroughly understand
the importance of punctuation?"

Stenographer: "Oh, yes, indeed. I al-
ways get to work on time."

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Recreation News

By RALPH C. SMITH

ALL MEN interested in forming a *Consolidated* rowing club to be coached by members of the San Diego Rowing Club please contact Ralph Smith at the Welfare Office. Workouts will be at the Club.

One of the best-loved fellows working for *Consolidated*, Bill Gilchrist, celebrated his 33rd anniversary with Mrs. Gilchrist September 26th.

We have approximately 30 basketball teams lined up at this date from the day crew and 18 from the night. The league started October 28th and we will have a round robin tournament and from this pick ten teams to form one league, the next ten another, etc.

May we remind you again that one of our biggest problems in the Welfare Department is incorrect addresses. No one seems to think this very important but we have had telegrams to deliver of death in the family and many other important things and have been unable to find the man because of an incorrect address. Fellows, if you have moved, please check with your department clerk and leave your correct address. You who live in the county please leave the street or road that you live on besides the box number.

Friday, September 27, inaugurated *Consolidated's* bowling season for the day shift crew. Mr. Kelly, Plant Manager, did the honors, throwing the first ball for a perfect strike. There are sixteen teams in the league, representing: Accounting, Purchasing, Machine Shop, Hull, Engineers, Wood Shop, Wood Mill, Tank, Maintenance, Experimental and Tube Bending.

The Accounting Department started the season off in great style by winning three and losing none. The bowlers for this team are C. Henninger, E. S. Brown, A. H. Bennett, Lester Holmes, and Carl Hanson. The Tank Department bowled the

highest average for a total score of 2368 pins. Frank Goy, John Duffy, J. Turoski, Ben Duffy and A. Sprenger represented this club. Carl Hanson of Accounting bowled the highest individual game with a score of 230.

The Monday night league started September 30th. This league also has sixteen teams from the day shift bowling. Seven teams have lost one and won three. The leaders are F. A. Electricians, Welding, Tank No. 1, Draw Bench, Machine Shop, F. P. Stockroom, and Inspection No. 1. The F. A. Electricians with a team score of 2048 pins were apparently the hottest team in this league. The best individual score we find was bowled by F. Shamkin of the Hull Department who had a single game average of 242.

The night shift which bowls Monday afternoons is represented by eighteen teams. Hull No. 2 right now is giving the rest of the boys plenty of trouble, having won thirteen and lost only three. Sheet Metal, Heat Treat, Experimental, and Hull No. 4 are running them a close race, each having won twelve and lost four. The high game to date has been rolled by B. Boxx, who had a 246.

We are going to try and enter an ice hockey team in the commercial league which is being formed in San Diego. All wishing to play ice hockey please contact Smith in the Welfare Office. Practices will be Tuesday and Friday from 5:45 to 7:15 p.m., and Sunday mornings between eight and nine a.m. These sessions will be open to anyone wishing to go out for the teams.

All men interested in group supervision please contact Mr. Gilchrist or Mr. Smith at the Welfare Department as the Y. M. C. A., Boy Scouts, Cub Scouts, and church groups have been asking for help of this type.

Boxing and wrestling. The night crew had a meeting on October 22 at the Army and Navy "Y." Over thirty have signed up. The day crew met at the same place at 7:30 in the evening with a good crowd. Anyone interested in joining these organ-

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izations please get in touch with Ralph Smith. Get ready for the plant championships.

Consolidated's first swimming meeting was held October 10th with a good turnout. This group met again October 17th to make plans for future activities. Those who wish to join this group whose sole aim is to develop swimmers and divers and to have a good time please contact Ralph Smith at the Welfare Office. Among those present were John Woodhead, C. Murray, R. W. Cooper, Joe Gillespie, Harold Bennett, Karl Offerman, B. E. Strojny. Do not be afraid to come out if you are not a good swimmer as we have men who are all ready to help out with instruction. Outstanding swimmers who attended were W. A. Clegern, who coached an undefeated team for two years; John Bratz, former Stanford champion in the free style, and Louis Surber who was Big Six champion in the breast stroke.

Consolidated's baseball teams met the first time October 19th and 20th at ten a. m., with a group of enthusiastic ball players showing up. This league will play Sunday mornings with six to eight teams. We also intend to have an All-Star team which will enter the Baseball Association Winter League to be managed by George Brown of the Police Detail, who was a professional outfielder for many years, having at one time been with Oakland in the Coast League.

Three of San Diego's best table tennis players are employees of *Consolidated*. Victor Richmond, winner of the last San Diego city tournament, works nights. Carl Heyl, formerly of Cleveland, Ohio, and holder of the 1940 San Diego Table Tennis Association Championship, is a draftsman in the night Engineering Department. John Bergstrom, formerly of Minneapolis, plays the typical attacking table tennis style of Minnesota. He is also in the night Engineering Department. These three men are virtually certain to be the top half of a six man team of San Diego table tennis players who will play Los Angeles in a prospective inter-city home-and-home match.

Victor Richmond is the president of the San Diego Table Tennis Association, and Carl Heyl is its secretary. This organization of expert and novice table tennis players meets Saturdays at 7:00 p. m. at the City Y.M.C.A., 8th Ave. and C St. The feature which should cause all who are interested in table tennis to join this club is the low dues: 25c per year. This includes membership in the U. S. Table Tennis Association, with which the San Diego Table Tennis Association is affiliated.

Help the new employee. Teach him the safety tricks of the trade. You may prevent a serious injury or save a life. The new man will appreciate your friendly interest.

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PRE-STRETCHED....

IT IS probably as much a step forward to find new uses for, or new properties in, a present aircraft material, as it is to develop a new alloy.

The desire to make use of the portion of the stress-strain curve of aluminum alloy beyond the proportional limit, and to cold-work the material to gain the desired properties with sufficient elongation remaining to cover the uncertain effect of impact loads, has been the dream of many a metallurgical theorist. The problem was to make this dream practical.

Several years ago the *Consolidated Aircraft Corporation* did a little investigating to see whether practical shop procedures could be developed that would justify the prestretching and precompressing methods of cold working 24-ST aluminum alloy. Tests were conducted, material effects studied, factory procedure very slightly changed, and a flying boat today stands as mute evidence of the practicability of production prestretching of aluminum alloys. The *Consolidated Model 31* was constructed of prestretched stiffeners, the strength of which has been increased in tension by approximately 28 per cent at yield and in compression in plate-stringer combinations by nearly 6 per cent at failure. An engineer, hearing of these property increases, probably visualizes elaborate production equipment to handicap rushed factories. No additional equipment or extra production steps are necessary to gain these increased allowables on prestretched materials by manufacturers who now use draw benches and who straighten drawn-sections.

The simplest form of "cold work" is

that obtained when a laboratory technician loads a tensile specimen beyond the elastic limit.

Inasmuch as "cold-working" can only be applied to a material in proportion to its original elongation or ductility, the elongation necessary for the final product is the main criterion of the degree of cold-working permitted. In our example, at "C", for instance, we have used up approximately .9 per cent of the normal 24-ST elongation of 17 per cent. There still remains 16.1 per cent elongation based on the original area to care for shop alignment operations, or to maintain adequate impact and energy storage qualities under service shock load conditions.

It is conventional practice to correct structural tests results down to the minimum guarantee allowable set by the material manufacturer. If this minimum guarantee could be raised or the material could be cold-worked by the aircraft manufacturer to properties above those in the "as received" condition, the correction factor to reduce test results to minimum property conditions would not be as severe as is now the case. The *Consolidated Aircraft Corp.* has found that a definite strength-weight gain can be made if controlled and cold-worked material is used on major structural assemblies. The present production practice in manufacturing stiffeners intended for such structures is to draw the various shapes from strip stock in the "SO" condition. The heat-treated and age-hardened material is then stretched to leave approximately 3½ per cent permanent set.

The effect of a varying time interval

between the quenching and stretching operations on the physical properties of 24-ST Alclad aluminum alloy is interesting. Tension and compression test results were obtained from 7/8" deep drawn zees prestretched 4.0 per cent. The tensile properties of the stiffener material, which was prestretched after age-hardening 24 hours following heat-treatment, were higher than similar properties obtained immediately after heat-treatment. These increases in the tensile properties amounted to 8 per cent for the P. E. L., 8½ per cent at yield, and 4 per cent at ultimate. The elapsed time had negligible effect on the ultimate compressive strength as de-

Condensed from the paper, "Modern Aircraft Materials and Their Testing" by Chief Structural Test Engineer, Ken R. Jackman, presented to the S. A. E. April 19, 1940.

termined from sheet-stiffener combinations.

The ultimate compressive strength of the prestretched material as determined from sheet-stiffener combinations was at least as low or lower (for material prestretched small amounts, i.e. ½%) as for similar heat-treated material which had *not* been prestretched. A steady increase in the ultimate compressive strength was obtained for materials prestretched more than 1 per cent. This increase amounted to 17 per cent for 10 per cent prestretch.

It is to be noted that extruded stiffener material prestretched 3½ per cent will develop a yield point in tension which is about 19 per cent above the value that may be expected from the same extruded material in the "as received" condition. The ultimate tensile strengths are approximately the same.

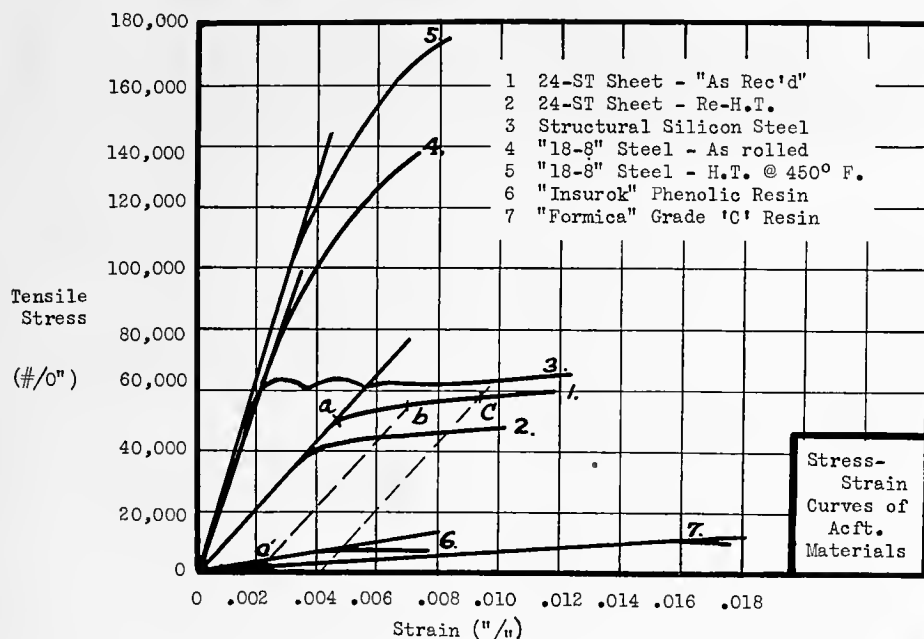
Consolidated Aircraft has also attempted to develop a practical method whereby the precompression of stiffeners might be applied to production. This investigation proved to be far more difficult than prestretching, since tendency of light aircraft sections to buckle must be resisted during the application of the high compressive stresses.

The ultimate shear strength of 24-ST aluminum alloy is not appreciably affected by cold-working the material in tension and appears to have a nearly constant value of 44,000 lbs./sq. in., regardless of the tensile yield or ultimate strengths of the material. The shear strength of 24-ST Alclad is approximately 10 per cent below the 24-ST values, as might be expected.

It has been found that the cold working of properly heat-treated aluminum alloy has no appreciable effect on the susceptibility of the alloy to corrosion. Tests in which 24-ST Alclad sheet were prestretched from 1 per cent to 10 per cent in tension and then were subjected to 400 days of exposure to 20 per cent NaCl salt spray showed no change in the tensile physical properties.

While the recompression of aluminum alloy stiffeners shows promising compres-

sion stress increases, the shop procedure to prestretch stiffeners in compression will necessitate equipment different from that usually possessed by aircraft manufacturers. The prestretching of stiffeners to $3\frac{1}{2}$ per cent set during the straightening operation, could however, be done by the material manufacturer on extruded sections in very slightly more time than is required to apply the usual $\frac{3}{4}$ per cent set to remove the heat-treatment warpage.



BOY OR GIRL?

Some folks pray for a boy, and some for a golden haired little girl to come,
 Some claim to think there is more of joy, wrapped up in a smile of a little boy;
 While others pretend that the silly curls, and plump pink cheeks of the little girls
 Bring more bliss to the old home place
 Than a small boy's queer little freckled face.

Now which is better, I couldn't say
 If the Lord should ask me to choose today;
 If he should put in a call for me and say:
 "Now what shall your order be, a boy or girl?"
 I have both in store

Which of the two are you waiting for?"
 I'd say with one of my broadest grins
 "Send either one, if it can't be twins."
 I've heard it said, to some people's shame
 They cried with grief when a small boy came
 For they wanted a girl. And some folks I know,
 who wanted a boy,
 Just took on so when a girl was sent, but it seems to me, that mothers and fathers should happy be
 To think, when the stork has come and gone
 that the Lord would trust them with either one.

—Author Unknown.

Wear your goggles. Every job can be done safely.

Even a strong man must lift correctly.

A newcomer to San Diego recently attended church where they have the pledge system. When the collection was taken up, everybody in the row put their little pledge envelopes on the plate, and as our friend passed it along he whispered hoarsely, "I can't vote. I haven't been here long enough."

Sometimes be sharp, never be flat—always be natural.

Luck prevents *some* accidents. Care prevents *all* accidents.

Americans of today won't "pass the buck!"

Much to our surprise, we found a man on the street corner selling newspapers the other day, and becoming inquisitive about his business venture, inquired, "How much do you pay for your papers?" "Five cents," he repeated. "Why, you can't make any money with that system," we expostulated. "I know," he says, unperturbed, "But I like to stand on the corner and holler."

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SAN DIEGO FLYING CLUB NEWS

By "Spike"

THE social event of the month was the breakfast hop. Twelve planes carried twenty-five sleepy people to Ramona on the morn of Sunday, October 6. A short walk to Kenilworth Inn whetted further the appetites of the already hungry mob. After the breakfast a new club was formed—The Breakfast Hoppers. A. H. Davidson was elected president and Walter Brown, Sec.-Treas. The first Sunday of next month will find us in Del Mar.

This month Johnnie Mayak, Cliff Peel and Tom Stanberry joined the ranks of solo pilots while Davey Davidson acquired his private certificate.

October 4th saw the annual election of Club officers. They now stand as follows: A. Henry Leboffe, president; Thos. Hemphill, vice-president; Carl Hunnaman, corporate treasurer; T. A. Truman, operations treasurer; Fred Young, secretary; Ralph LeVine, social director, while Jack Baker, Johnnie Testa, and Spike McCannon comprise the advisory board.

Since the waiting list for Club memberships has been steadily growing the executive board at a recent meeting voted to open up for twenty more memberships, replace our oldest plane and purchase a fourth ship. You are cordially invited to drop around and watch our activities and—possibly join our happy family.

Good housekeeping does not mean cleaning up once a week or once a month. It means keeping things cleaned up all the time.

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- Kennedy Steel Tool Kits
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HIGHLIGHTS FROM WELDING NIGHTS

By Bert Bailey & Myron Olmsted

ANYONE collecting old deer tags might come to the Welding Department. They'll be showered with enough of them! Roy Charboneau has been enjoying 160 lbs. of venison that came out of his first hunting expedition—Hendrix didn't do so bad and neither did Draper, Rogers, Berkheimer, nor Higbee, with one each.

Pete Van Vechten is a welcome addition to this department according to V. L. Hendrix, who thinks he makes a great little helper.

Among the new men present are John Shaw and Ambrose Garrett who hail from the Lone Star State, and Willard Fuson, Dan Mellish, E. G. Barber, J. Villian, F. S. Liepitz and C. R. Small who all hail from the day shift. Welcome!

Whooda thunk it! Ted Carver, the super tank welder, at one time played in the percussion section of the Kansas City Philharmonic Orchestra under the direction of that world-famed conductor, Otto Krueger. He's handsome, too.

Dan Slagle is now a resident of El Cajon. L. C. Cornelius says that he should be able to get lots of sleep in such a quiet town, but Dan says the heat beats him out of it.

The walls in the welding booth down Tool Room way look like the inside of a street car—all littered with campaign slogans and chalk sketches. Norman Monteith says the day shift must keep Carl Wright busy trying to arrange space for their artistic overflow.

For Hire: One good train and harmonica imitator. See Ray Speck.

Friends of Miss Virginia Duffield, Dick Stone's heartbeat, will be sorry to learn that such a charming and swell gal has been in the hospital, suffering from a spinal injury received when she was thrown from a horse. However, she is doing nicely and we will be glad to see her up and around in a short while—for Dick's sake. He'll be in there when she gets out if he doesn't calm down.

On the week-end of October 12-13, Mr. and Mrs. Blair Rogers and their son, and Mr. and Mrs. Woodrow Rogers drove to Boulder Dam via Lake Arrowhead and a few cow trails. They went to, and were taken in, at Las Vegas. The boys wish now that they had listened to their wives and had kept away from the one-armed bandits. Blair says, "It is truly a sight to behold and one spot in the world that should be on every traveler's 'must see' list."

FROM THE OWL'S NEST

By D. T. LeFever

PEOPLE still get married. There's Bob Hoerger who gave Yuma citizens a treat by going there to have the ball and chain applied. His missus is the former Jean Phibbs of San Diego. Good luck, you two. The marriage took place Saturday, October 12th.

Bernard P. Sulser became another member of the trekkers to Yuma and will be doubling up in a suitcase come next vacation time. He and Marguerite Dorland of Des Moines, Iowa were married Saturday, October the 2nd.

I've heard too, that there is a fellow named Harry Adelson who just recently was spliced for life but can get no further information. Probably will know more of it by the next issue.

When someone asks Pick Shoaf the old one about the chicken crossing the road Pick says the only time he takes any special interest in a chicken is when it is fried to a rich crispy brown and in a recumbent position on a platter within reaching distance. Who's denyin'?

Reggie Wolfe finds life sad and dreary what with ten hours on the job and only fourteen hours to haunt the nurses in a certain hospital.

I'm sorta new to California and I kinda like it here too, but I'd like to know what kind of a club it is that people belong to that they don't shave for a week or so at a time. I don't like to shave either!

Ernest "X-marks-the-spot" McJoyner has been talking of alkaline cocktails lately. He says it's because he has a cold and he can prove it by his doctor.

The heartfelt sympathies of the entire Hull Department go out to R. D. Wilcox due to the loss of his infant son. And also to W. H. Nanninga for the loss of his sister.

Bill Gufler says if he gets time and a half for anything over eight hours for drilling single holes that he surely ought to get time and a half plus time and a half for all the double holes he drills. Bill's got something there.

Chuck Green speaks knowingly when he says those new tool boxes are swell—and can stand most anything—except a falling body!

John S. Clemson says his wife brought back a couple of smoked hams from Missouri when there on a visit recently. Makes the old mouth water to think of it. Black-eyed peas, corn pone, potlicker and a half-inch slab of good home smoked ham. Why, that's out of this world!

STOCKROOM SAGA

By Kel Aiken

LAST month saw Charlie Sandlin taking a try at matrimonial bliss, marrying Miss Ruby Pyatt from Redlands. Charlie is one of our top bowlers in the newly formed bowling teams, and sets a hot pace for the rest of the team. He is not to be outdone by "215" Forsman of No. 2 Stockroom. "One-pin" Wilee says he doesn't see how anyone could bowl worse than he does. The correct answer to this is "There are worse bowlers, but they don't bowl." All the limping and sore muscles around the Storeroom is due to the arrival of basketball season. Bob Kemper in attempting to throw a basket, threw his knee instead and will be out for the rest of the year. After watching a basketball practice, I feel we have some wonderful football material.

Jerry Swartz mustered his inspection crib forces together and moved in en masse, forcing Ed Stewart's boys to retreat to the far end of No. 1 Stockroom. The Monday morning after the move found Dud Hall working in the inspection crib for two hours before he found out the office had moved.

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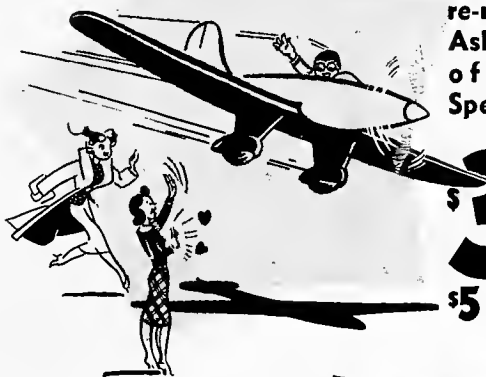
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HEARD ABOUT THE HULL

By Bill Pettit

WELL, the bowling season is here once again and needless to say, the Hull Dept. is right up in the money. The most outstanding team of the eight Hull groups is that energetic crew captained by H. Roesse.

Copping top honor among all Consolidated bowlers last month was Freddy Shamkin, Hull Assembler, who rolled a 247 score! Freddy received a pin from the officials and also came through for the Hull team. Nice going, Freddy!

Many little details are bothering Hull men these days. Foremost among these are the following: Where does Hotchkiss get all that deer meat? Why does anyone so homely have so many beautiful women, as Mitch Williams? And where did Geo. Wire, Hull Foreman, get that finesse on pinball machines? And why does George Galley keep calling 354?

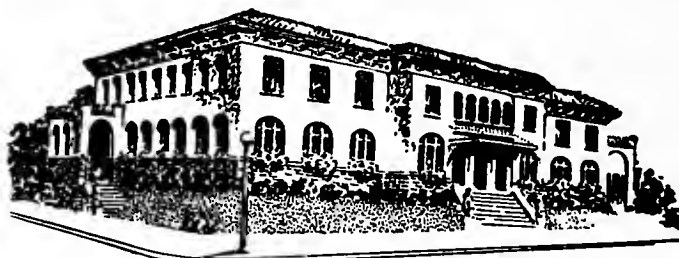
And last but not least, why does Freddy Smith, Hull dispatcher, go 'round in a daze? And what makes Milton Wisdom so anxious to chase blueprints?

Anyone answering all these questions will receive a vote of thanks from the Hull gang.

Transferred to Inspection October 15 was Bill Stacey, former Hull workman on super-structure. When asked how he liked his new job, he exclaimed, "Swell, and if you don't think I don't know the little things to watch for, try me!" We wonder how he knows.

All the gang misses Scotty Doig, who left last month, especially those who took part in the Hull golf tournament. Nevertheless, Fred Grossher took charge of the most recent tournament and handled it very well. First prize was won by Freddy himself. Isn't it odd how things turn out?

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DRIFTING THRU DRAFTING

By R. R. Hoover

JUST received a report that certain subversive (?) or at any rate secretive forces are operating in the Purchasing group: Willkie buttons appear from nowhere to harass the Roosevelt-minded Bob Shaver.

While speaking of Shaver, we might mention that his unfortunate loss of half a front tooth explains his opinion that the expression "on ice" does not mean security or solidity . . . especially if the ice in question is located at the Glacier Gardens. Too bad, Bob.

Seems Gene Holston and Bob Hoover overdid their badminton recently. At least that was their excuse for sitting down very gingerly and using their hands to help sore muscles cross their legs.

Myron Smith of Purchasing Group is entitled to the strut he displayed a few weeks ago—seems he was runner-up in the finals of the Engineering golf tournament.

We've noticed that Felix Kallis spends a great deal of his noon hours reading while he walks. In fact, we've come to wonder just how he manages to read at home at night. Do you suppose he has a portable reading lamp with a long extension cord to allow a greater "scope" for his reading?

If Ken Whitney mentions planning a trip to Los Angeles, just check up to see how many hats he intends to take with him. We hear that a certain hat-check girl at Earl Carroll's has made quite an impression!

When one thinks of airplanes one thinks of weight and when thinking of weight one thinks of Henry Mandolf. Henry and Bob Lutz recently spent some time to discover whether specifications designated where an airplane must be weighed and learned that no place is specified. Henry immediately offered the suggestion that the airplane be weighed on Mt. Whitney. However, Sid Avery objected by pointing out the difficulty of transporting scales, etc., to the chosen spot. So Henry suggested a road might be built and argued that such a road would also tend to better the public health by promoting mountain climbing. Bob countered with the suggestion that the airplane be weighed in flight. Sid Avery just spluttered!

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WOOD SHOP CHIPS

By Ernie Hodgson

Jimmy Poschman is plenty sore because the daily paper misspelled his name "Roschman" in announcing his wedding plans. "I don't need any alias," he tells the world. Best wishes are in order for Jimmy and the former Miss Helen Rogers of Pacific Beach. They took the irrevocable step Saturday, October 19, 1940.

Otay Lake was the scene of Red Butler's piscatorial pursuits October 13. Had bulrushes been fish, he would have been overloaded; but alas, no fish.

"Major" Brown should be honored, rumor having it that a guy named Testa is trying to raise a moustache, alike unto his'n.

"Farmer" Brabban has a cow. By grapevine comes that word that he is putting the "Ponce-de-Leon" twins McGiffin and Hardacre on a milk diet, providing each with a gallon of the lacteal fluid every other day or so. It seems like these stal-warts are trying to discover the



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elixir of life. Ah, me! Youth dies hard.

The marriage between Paul Henneberg and Miss Carmen L. Conger took place at Phoenix, Ariz., October 12. Mrs. Henneberg is secretary at the Edison Grammar school, and is also active in music circles.

Our Monday night bowling team is doing pretty good considering that they opened their league play without any previous practice. The team is: Carl Schumaker, C. E. Jones, Henry Jensen, C. Calvert, Terry Greville, and Carl Hirlbach.

While he is a tool inspector, we of the Wood Shop are inclined to look on J. L. "Bill" Weaver as one of us, and in this light feel justly proud. Why? In the November issue of *Popular Aviation* are photos and descriptions of his now-becoming famous pancake aircraft engine. For any success that comes to "Bill," I wish to be first with congratulations, and as he started the job in my garage, that eventually produced this engine. The product is the direct result of three and one-half years of unceasing work and sacrifice of practically all leisure during this period. So may the rest of the way be plain sailing!

According to Harry Whittaker the Wood Shop is going to provide two teams for the coming basketball season. See Harry for any further particulars.

A recent news item states that a fowl with two hearts was discovered on a farm in France. This reminds us of a bridge partner we had once.

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A young lady walked cheerfully into the post office, stopped at the wicket and asked for a three-cent stamp. The clerk was not in very good humor, and he snarled, "This is the information window. Can't you read?" The lady meekly proceeded to the proper place, purchased her stamp and returned, "You say this is the information window?" "Yup," yapped the clerk. "Well, if I mail this letter tonight will it be in San Francisco tomorrow?" she continued. "Sure," he barked. "That's funny," was the final squelch, "It's addressed to Albuquerque."

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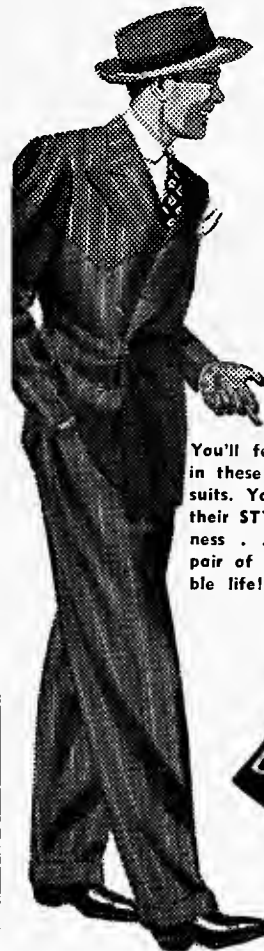
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TEST PILOT . . . DESIGNER

CHIEF Test Pilot "Bill" Wheatley is shown at right on the latest version of his electrically driven bicycle, or "Electricycle." His first version netted him considerable kidding, but from the way this one operates it appears that there soon may be a whole flock of them in use about the plant to aid in solving the transportation problem for those who must get places and back. The original was a standard bicycle and the drive battery and motor mounted on the front fork and had only one speed. It looked odd, but showed promise and Bill designed the second one from lessons learned from the first.

Its low center of gravity makes it easy and natural to handle and when it is "shifted" into high it has plenty of "oomph." It uses a heavy duty 6-volt battery and series motor with built-in reduction gear, then chain drive. Has free-wheeling, and front and rear internal expanding lined brakes hand operated. Has slow speed for smooth starting, and operating in cramped quarters, and high speed for making time over longer stretches. Uses 20-in. heavy duty balloon tires. There are two batteries, one for day shift, the other for night shift. The battery not in use is put "on charge." Capacity of battery is ample for more than the normal amount of running during the day.

Mr. Van Dusen, Jim Kelly, Bert Bowling, Comdr. Taylor, Bud Waterbury and quite a number of others have given it a trial spin already. "Bill" says, "Watch someone take their first ride. A smile of satisfaction is guaranteed."



TOOL DESIGN TID-BITS

By Maguire

FOOTBALL'S here again. We have been up North almost every week-end to see intersectional or conference games. Maybe you don't think there were a lot of Consair rooters up there, too. Counted twenty from P.R. and T.D.

If our own little "To the Ladies" snoop doesn't quit saying, "Oh, in a week or two, a month or two," etc., someone is going to pin her down on just how long it will be!

Tool Design for the first time starts a full night crew. Some of the owls will be Bert Rowan, P. Welty, C. Mattson, W. Burgher, R. J. Knight, T. Stanberry, Harold Strawn, L. Granstedt, and J. R. Service . . . and yours truly, me.

Bert Rowan and C. Smith—who is now a big Engineer and great deer hunter—are in seventh heaven. They're on nights and can see? ? Guess who? Ray Peters is getting to be a great fisherman? Marcella is having trouble with her lipstick. Won't someone help her out?

And some of the boys are singing "We're In the Army Now." Greeting to new men. List of names not available at this time.

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SHEET METAL NEWS

By H. B. Millman

Bill Sherriff says a fellow should get married while he is still young and grow up with his family, so he is stepping off November 8. Good luck, Bill.

It's just been reported Curly Reichard skipped off to Yuma about three weeks ago and got married. We all wish you lots of luck, Curly.

Nate Wellman is back in Sheet Metal after quite an absence.

Congrats to Martha Jorgensen of Palm Beach, Fla. She declared September 21 "Sadie Hawkins" day and dragged George H. P. Jurad off to Yuma. George says, "I knew this leap year would get me."

The secret is out how Diaz Hightower got his pugilistic ambitions. His father once boxed 3 rounds on the same card that Bob Fitzsimmons appeared on.

Mr. and Mrs. Carl Mounts are the proud parents of a baby girl and possessors of a new home all in the same month. Little man, you have had a busy day.

John and Amelia Kelly announce the arrival of Linda Kay Kelly, October 3, at Mercy Hospital.

Mr. and Mrs. Mike Alienelli also received a bundle from Heaven, October 7. Carla Lucy weighed in at 6 pounds, 1½ ounces.

Bownie Rellik is about to make the leap into the sea of matrimony.

C. B. King, Jr., is the proud papa of a baby girl, born last month.

Tommie Wathen got a ticket for parking in front of a driveway. He says, "They don't have driveways back in the Ozarks."

Bill Wilson's girl friends have given him the title of "glamour boy" and is he proud of it! Bill must be quite the man around the women.

Ward Hutton of Sheet and Ted Fox of Final went deer hunting. Both boys drilled one; Ward's was a 176-lb. one and Ted's a 162-pounder.

Jack Sangster, John Smith and L. V. Denny went on a fishing trip to Ensenada, Mexico. According to reports, all the big ones got away.

COMMUNITY THEATER

NOW started on the most ambitious dramatic program in its history, San Diego Community Theatre, a non-profit civic group whose Thespian home is the Globe Theatre in Balboa Park, will welcome *Consolidated Aircraft* men and women interested in acting or technical stage production—and it goes without saying that the Theatre will welcome any and all Consair people as patrons to its shows.

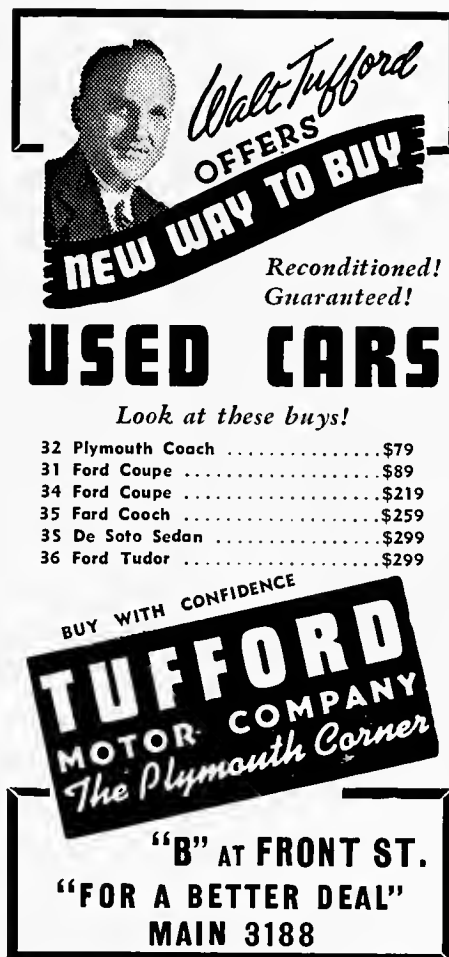
Just what is this Community Theatre? It is strictly an amateur play-making organization, and its active membership is open to all San Diegans interested in production of plays. The active membership, however, is limited to 250. Applicants for active membership are considered by the board of directors, and upon payment of the dues of \$5 per year, are accepted as probationary members for six months. At the end of that probationary period, if their development and attitude have been satisfactory, they are accepted as full active members.

Membership dues also include admission to the eight major productions, to classes in acting, scene design and backstage technique, and privileges of acting in and assisting in production of plays. The classes are under the direction of Miss Amorita Treganza, well-known performer and director, through an arrangement with the city schools system.

Craig Rupert Noel is productions director for the Theatre. Reginald Poland, executive manager of the Fine Arts Gallery, is president of the board whose other members are: Mrs. F. E. Marcy, Mrs. Fred A. Rhoades, Mrs. Hubert Martin, Miss

Anna Just, Oliver Dernberger, W. L. Van Schaick, W. A. Dennis and William Woodall.

"Any *Consolidated* people interested in seeing these shows, or taking part in them, are cordially urged to call us," said Mrs. Dennis, "Phone Main 3410 or Main 6066."



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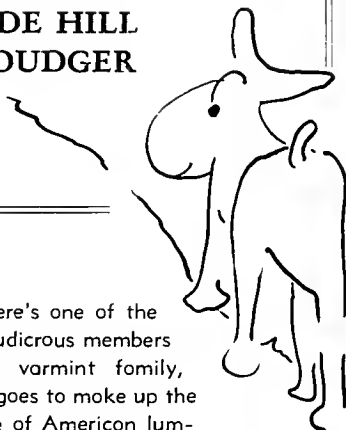
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R. A. Lambert, Tool Room, made the above photographic survey of the past year at *Consolidated* ... during which time the increase of manufacturing floor space was 87 per cent. The pictures show:

1. September 24, 1939. Bird's-eye view of the plant, from Mission Hills.

2. January 14, 1940. View at north end of plant. The old employment office, WPA buildings and vacant fields.

3. February 24, 1940. The field has been leveled off, the contractor's office appears, and the pile-driver starts smacking 'em down.

4. April 14, 1940. Material is on the ground, a few columns have sprouted up, and the roof frame-work started. The old employment office has gone with the wind.

5. May 5, 1940. Columns are up for two-thirds the length of the addition, and one-half the roof frame-work is in place.

6. May 26, 1940. All the frame work is up, and painting of the steel is well under way. Note addition where old employment office had been.

7. August 18, 1940. The north addition completed, occupied, and on production.

8. August 18, 1940. Contrast this view with No. 1, both from the same spot in Mission Hills.

August 18, 1941,— ? ? ?



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CONSAIR FLYERS CLUB, Inc.*By Barney Farley*

Orville Hubbard makes the news this month by becoming the first Consair club member to enter commercial flying. Orbe accepted a job with an eastern university as flight instructor. We are going to miss the genial presence of him and his wife, Maxine, at meetings and around the field.

Steve Brown and wife represented Consair Flyers at the recent meeting of the Breakfast club at Ramona. This organization is made up of a group of enthusiastic private flyers who have agreed to meet at a designated spot once a month and have breakfast. Besides being quite exciting to those who really enjoy flying, it gives the members a chance to do some hangar flying over bacon and eggs!

Miles Blaine, able club treasurer, was not to be left behind. He came breezing up to the breakfast in a Luscombe. Reports have it that he never got up so early in his life.

Now comes words of the recent engagement of one of our most active club members, Tom Cunningham. Congratulations.

DeVorak, Breatheway and Kastehlon are reported as having qualified for C.A.A. flight training. This is a great opportunity for those who are fortunate enough to be selected. We wish them all kinds of luck.

Yasinski is certainly burning up the airways this past month, keeping the ship busy on week days and week ends. You have to go quite a ways to witness smoother landings than the ones this fellow 'Ski' makes.

Through the efforts of Al Draimon, we received some fine publicity in a national aviation magazine. Next, says Al, will be a picture of ship and members.

Would like to say a word about myself this month. Obtained a private license during the past month and the biggest thrill of it all was opening the envelope when it came through the mail a whole week later. Next biggest thrill was taking the 'one and only' for her first airplane ride.

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GLIDING AND SOARING*By Vic Korski*

THE Associated Glider Clubs of Southern California, whose membership is mainly composed of Consair men, entertained with a dinner honoring chief cloud-hopper John Robinson, who has just returned from the east. Josh Wilbur of Loft engineered this affair on October 11.

It was a treat to hear John give a brief account of his successful blitzkrieg of the Southwestern and the National meets. Winning the first by a wide margin and the latter by a photo finish, he set a new distance record of 290 miles, flying from Elmira, N. Y., to Mineral, Va., in one non-stop flight. Lady Luck played nip and tuck at Elmira.

Ernie Stout of Aerodynamics spoke of the growing interest in gliding and soaring. On his recent trip into the east it was comparatively easy to strike up a conversation in the recent development. The research department of the N.A.C.A. is giving a great deal of time to testing and developing of motorless craft.

Scott Royce of Engineering was called upon to give his opinion of the test hop of the club's new Baby Albatross "Thun-

dercloud." Someone had their wires crossed, for it was not he who hopped the "Baby," but Ray Parker of Model Shop. Scott corrected the misapprehension and gave a swell account of the characteristics of the ship.

★ ★ ★ ★ ★ ★ ★ ★

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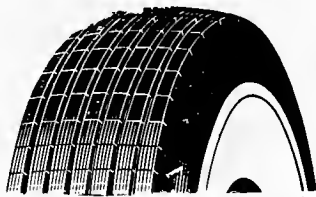
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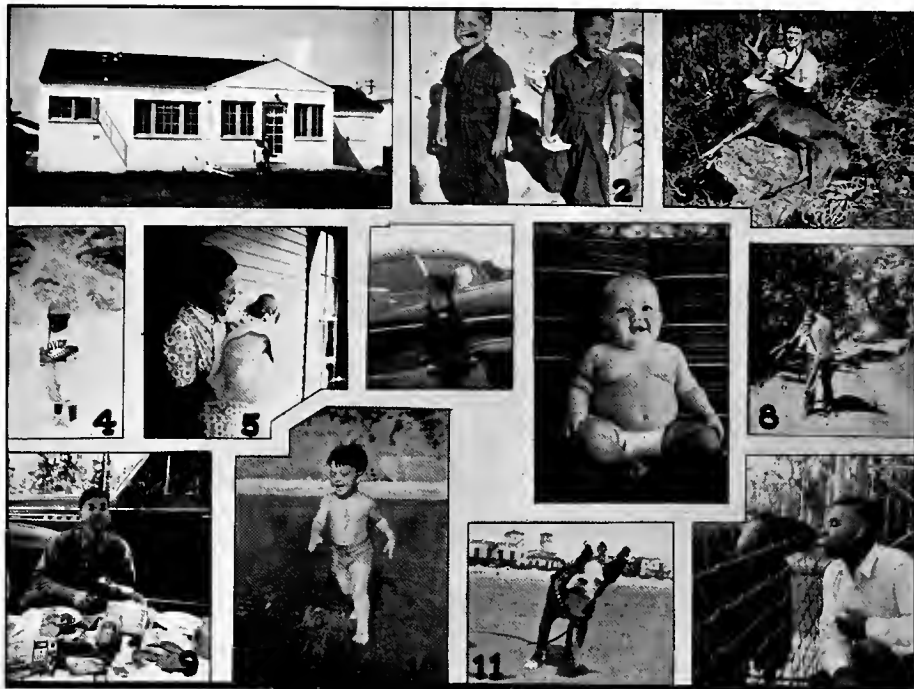
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FROM OUR ALBUM . . .

1. C. M. Tyner, Bench Inspector, bought this new home at 4448 Estrella Street last month. Daughters Carol, 6, and Doris, 4, are on the front porch.

2. Remember Bernie's twins? Jim and

George Swarts are 3 1/2 years old.

3. Ward Hutton brought this 162-pound buck back from a deer hunting trip into the back country of San Diego County. It has a twenty-inch spread.

4. Al Hernandez, Jr., is already warming up for next spring's baseball.

5. David Gary Homan was born on Friday the Thirteenth! E. Homan is in the Maintenance Department.

6. Snuffy is the piano playing cat of Ernest S. Fletcher, Sheet Department. Fletcher is mighty proud of the intelligence and faithfulness of Snuffy.

7. Donald Earl Bohnsack is 5 months old and weighs 22 pounds. His dad is Earl Bohnsack of Sheet Metal.

8. This is Ted Fox totin' home his 162-pound buck, shot in San Diego County.

9. Red Boyle of the Plaster Shop likes his picnics!

10. Larry Edw. Mulryan is shown at the beach. His father is L. G. Mulryan of the Maintenance Wood Mill.

11. An Inspector's dog is "Poochie," owned by Gordon Dobson.

12. Not all the animals in the zoo will pose for a picture like this Big Horn shown with Ernie Condra, Hull Department. A former employee of the zoo, Ernie is an accomplished story teller, and is the only man ever to bull-dog a water buffalo and live.

The fellow who laughs at safety is headed for an accident.

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NIGHT WING TIPS

By Carter

George Moore is a proud papa. This time it is a girl, six pounds and some ounces. Mother and daughter are doing nicely; father Moore may recover.

Eugene Frederick Van Dusen, Jr., son and heir to Gene Van Dusen of the Draw Bench Dept. arrived safely at Mercy Hospital and is Van a proud papa—just ask him!

Practice for the Production basketball team started Monday and what a galaxy of stars! To mention a few: Bill Baker, Dick Scott, Pat Moriarity, Roy Larceval, Leonard Wilber, Ralph Jacobs, Doug Wilson, John Morquardt, Bill Buhlman, Bob Harvey, Bob Walker, Dick Adams, Bill Flennihen, Jim Fling, Lou Purcell, Chuck English, Jerry Adams, Rex Cord. The team is managed by the very astute Mr. Craig Clark, coached by that great strategist, T. Carter, and "water-boyed" by Gordon "Aloysius" Browne. While bowing to the George Wire pros, we hope to give a fair account of ourselves elsewhere.

The Heideman homestead is fast approaching completion. This is one housewarming that I do not intend to miss.

It's true, so help me:

"Sonny Boy" Allen really was a colonel. Jack Thompson plays golf and has a "monkey suit." Brad Bradshaw is still with us—he's on nites. The gals really are crazy about "Tex" Vining. Kipple's alias is Kiplinski. Bob Elo is really a very, very tough hombre. Al Rolaff is known as "pappy" to the punch press boys. The gentleman that operates the Hamilton press has a very impressive name . . . i. e., Henry Sisson Cooper, Jr. If I write much more of this drivel my life insurance will be cancelled.

Congratulations to Steve Powell upon his promotion to head of the Wing Department.

Well, now, to the solitude of the Wing Department to quietly meditate my sinful past.

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The Consolidettes (left to right) Grace Koenig, Veronica Paschen, Maxine Bennett, Evelyn Parkins, and Lois Campbell, as they felt Sunday, October 13, after the Maintenance challenge. Photo taken by Roy A. Schultz.

"Consolidettes" Bowling News *By Lois Campbell*

I wonder if my father could be right when he says, quote

Everyone is crazy but me and thee,
And sometimes I think thee is.

end of quote.

Last month we challenged any five men to compete with us in a game of bowls. We were challenged; we competed; we lost. So now we have to dine (and wine?) those marvelous Production Bowlers, Messrs. Coykendall, Gimber, Bender, Buehler and Marks. This is our hour of sadness and gloominess and woefulness, but if we have failed our cheering gallery, do not sorrow 'cause we'll be better bowlers tomorrow, or maybe next year.

I came out of my dither long enough to learn that the boys had beaten us two games out of three by a "slight" margin of 400 pins. It's a shame though that they had to waste the beautiful alibis they all had in case they did lose.

We received another challenge from the Night Maintenance crew and we thought it would be a good chance to redeem ourselves, but what a foolish thought. We bowled against Messrs. Marcyan, Schultz, Gray and Mueller, but that defeat has only made us more determined to win a match from the men. We are still undaunted and will request a return match sometime in the near future.

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BUCKNER'S

Little Alice the "Ditto" girl is going to be a regular bowler on our team from now on.

Evelyn and Grace have shown the greatest improvement in their game since we started bowling two months ago, both having increased their average 20 pins. Maxine rolled the highest single game with a 215.

I wish I weren't writing this article 'cause if someone else were writing it they might mention the 208 game I rolled.

"Oh, I rolled two-o-eight,
But do not call it fate,
Cause the two-fifteen,
Rolled by "Toughy" Maxine,
Is the score I really berate."

SPORTCASTING

By Matt Wielopolski

OCTOBER made history for Roy Coykendall, who started his bowling season by winning second place in the city championship of the 160-pin average bowlers. Then destiny smiled again at Roy, this time he ended the deer season by bagging his second antler in as many weeks. That's what they tell me at the office—that Ed Kellogg has a "deer" in Miss.

Every Monday afternoon the Heat Treat boys win plenty and lose a few to hold the edge over a strong Sheet Metal team. Meanwhile, in the Monday night league, the strong Machine Shop fellas are bowling their heads off for top honors.

NOTE: Charlie H. Miller is still trying to break into golf's 80's.

Don McClarren has challenged Homer Shaylor for the fourth consecutive tennis match since losing to Homer in the Con-sair Tennis Championships.

Geo. Wire's night Hull would like to play off that softball tie agin' the day Hull team any rainy Sunday.

We hear that Frank O'Connor went marlin hunting on the last day of that fish season. Wouldn't you be surprised to hear that our all-around sportsman, R. Coykendall, would have the spot-light on him, if he dared tell a better fish story than Frank?

A Get Acquainted

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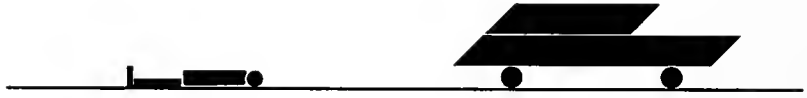
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DON'T pick 'em young.....



IF YOU MUST sock somebody with that jalopy of yours, for Pete's sake pick on someone over 21! Damage an adult, and he's got to sue within one year—or else. But injure a minor and—well look:

Fellow we know knocked a neighbor's child off his skooter. (This was back in '26.) The kid quieted down after a bit and rode off, and the fellow touched wood, feeling plenty lucky. In a couple of months he'd forgotten about it. But he remembers it clearly enough today, for the kid—now grown up—has brought suit for "disabilities resulting former causes"—which he claims he incurred **fourteen years ago!** Here's the tough part: the cut-rate company that fellow was insured with in '26 folded up in the meantime, taking his protection with it!

Get the point? Either don't hit 'em under 21—or be certain you're insured with a company that'll **be** here, fifteen or twenty years hence! (Aetna, for instance.)



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HULLabaloo

By Al Leonard

George "Scavenger" Galley was highly surprised last week when his father came west all the way from Pittsburgh, Pa., to visit him. The shock was so great George could only steal three lunches that day. It was a queer coincidence that George's dad showed up the day after George's bowling team had lost all four points. Mr. Galley, Sr., is an undertaker.

Sammy Galasso is the latest Hull Department man to gain the title of "professor." Sammy is now an instructor of riveting at one of San Diego's vocational schools.

Three Hull clerks took advantage of their young innocent faces and boyish pranks to get in to see the U.C.L.A.-Texas A. & M. game for forty cents, Students' prices, in Los Angeles recently. Williams

and Wisdom had a great time, but Bill Pettit cursed the day he went. While he watched the game in Los Angeles, the fleet came back to San Diego and one of the sailors proceeded to show Bill he had made a mistake by not taking his girl friend along. Moral: Don't go to see football games while the fleet is ready for any eventuality.

Glenn Hotchkiss went on two deer hunting trips recently. On one trip Glenn and his party went up to the Bishop Lake country for a few days. One deer was shot (not by Glenn, of course). On the other trip Glenn was accompanied by Mike Kollman and Walter Bubel, former Hull Department men now working at North Island. Glenn says they would have gotten some deer if Mike hadn't stalked them like a charging elephant and Walter's breath wouldn't have whistled the way it did. It looks like those North Island boys have gotten soft, and can't take it anymore.

Alvin C. Dyer was married October 14 at 9:30 p. m. to Ruth Vaughn in San Diego. The former Miss Vaughn comes from Kansas City, Kansas. They plan to live at 339 20th Street.

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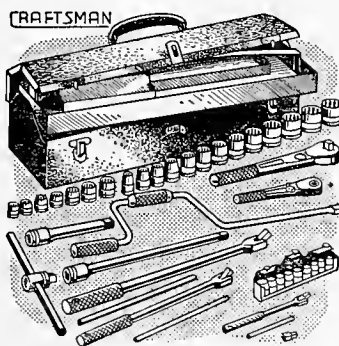
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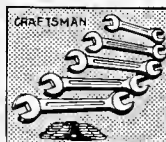
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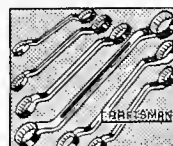
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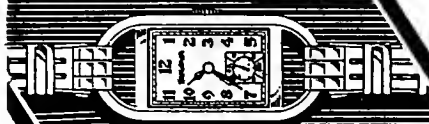
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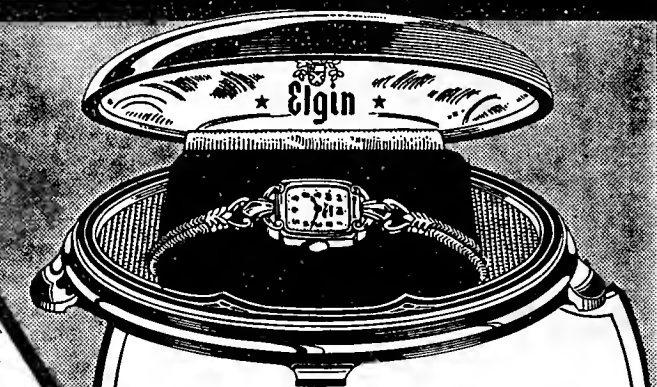
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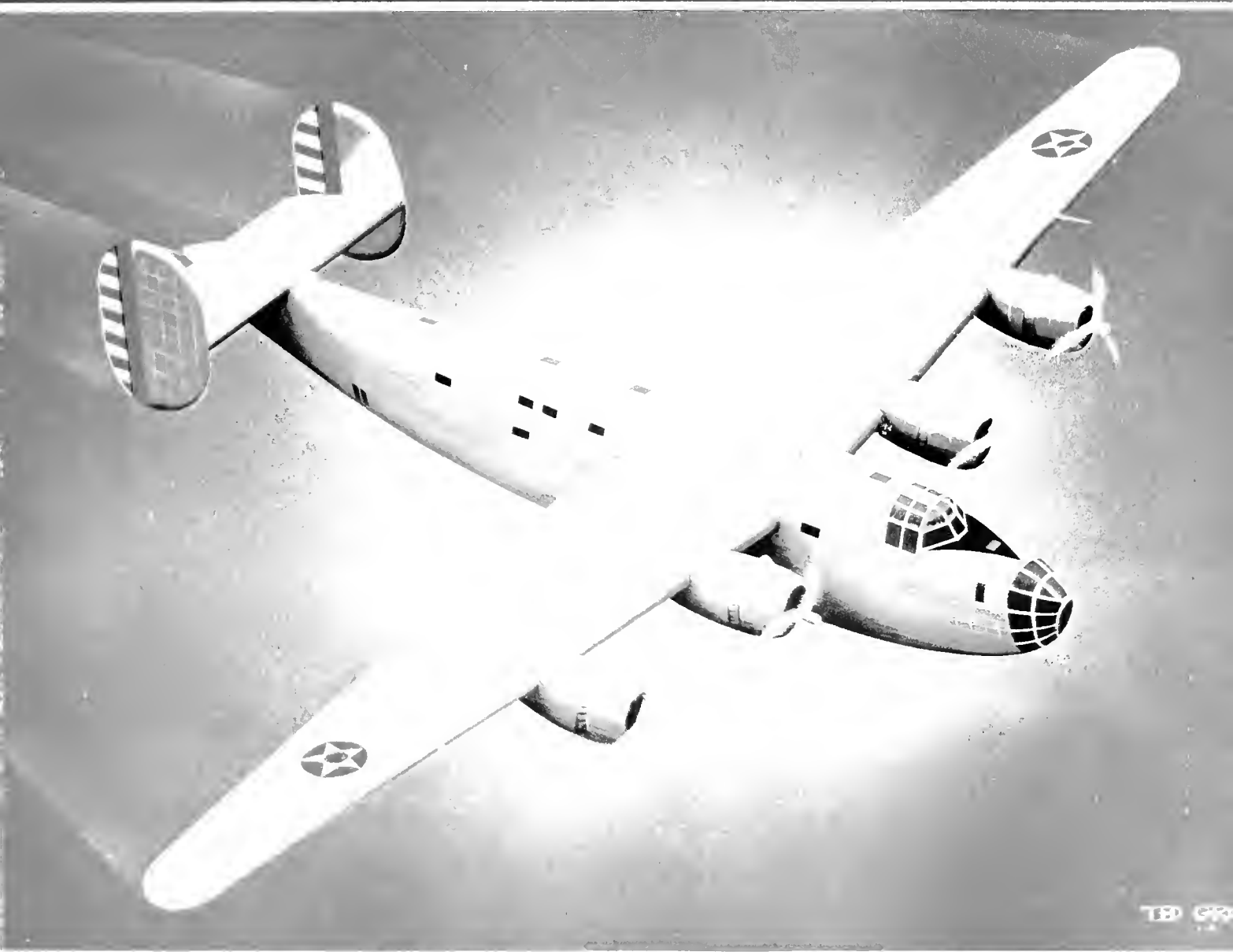
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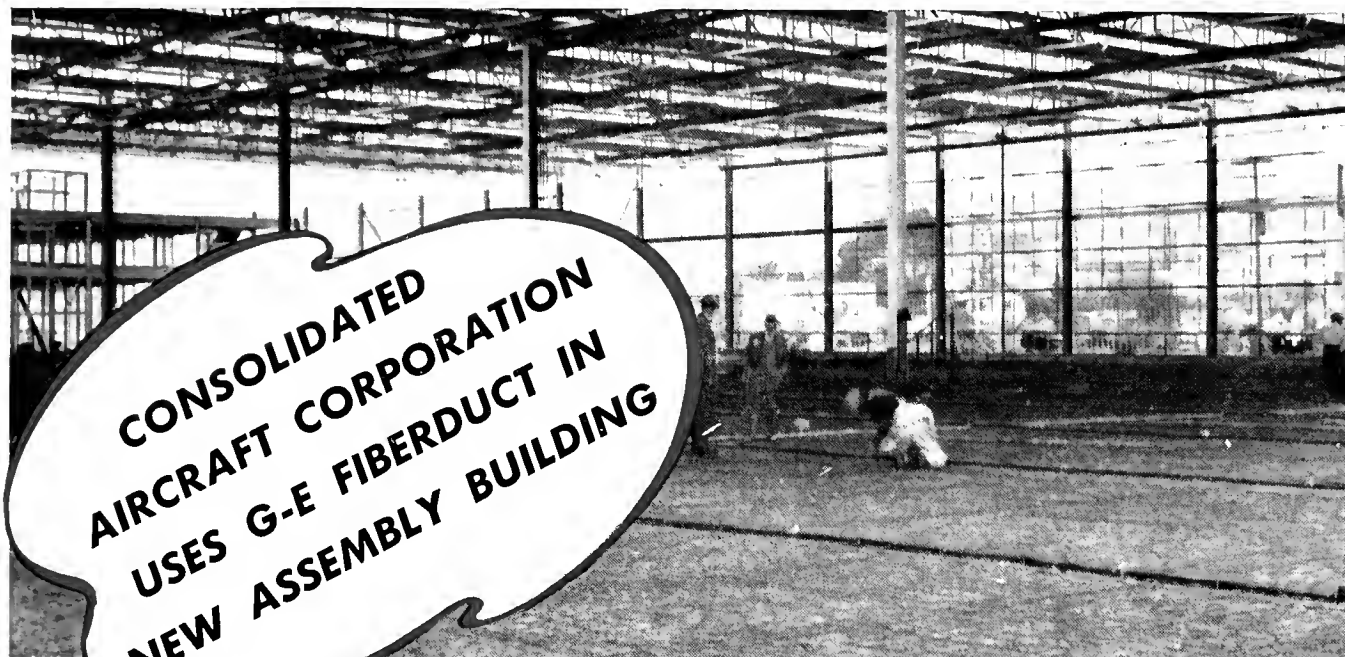
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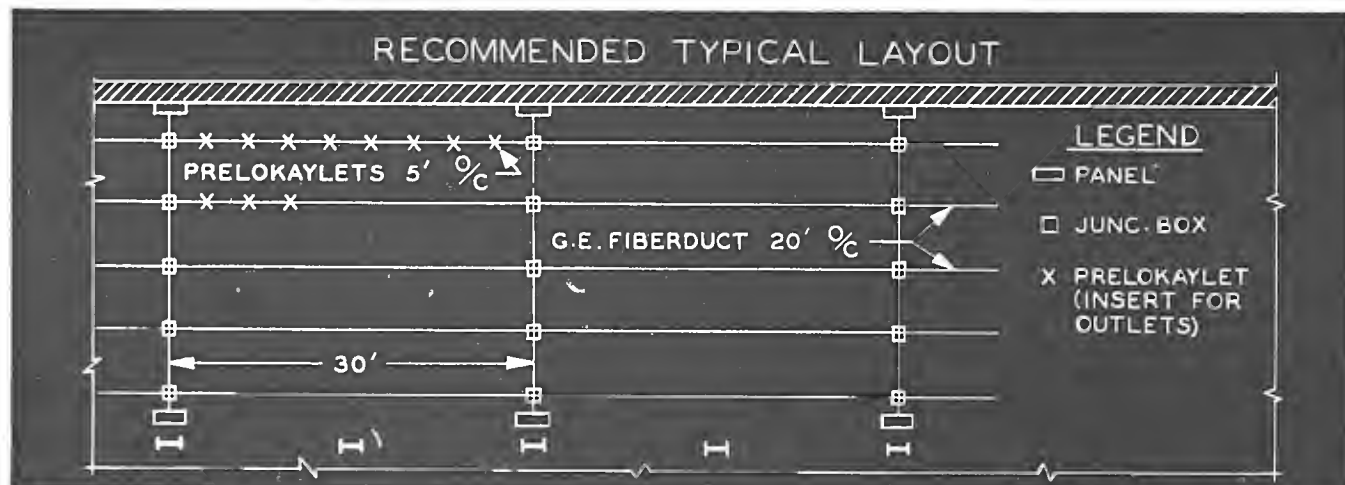
Power is conveniently available in all parts of Consolidated Aircraft Corporation's new Assembly Building at San Diego, Calif., because a G-E Fiberduct underfloor raceway system was installed. Lateral runs of duct on 20-foot centers provide many power outlets, preset at the factory, on 5-foot centers.

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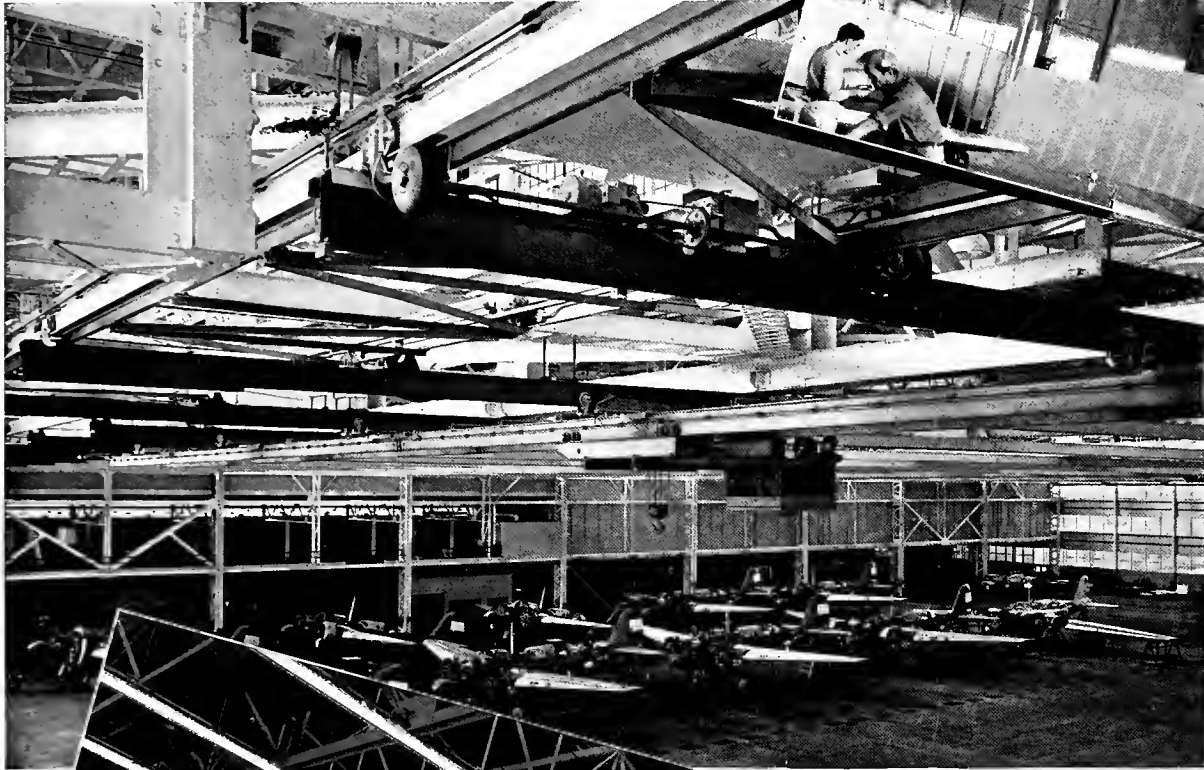
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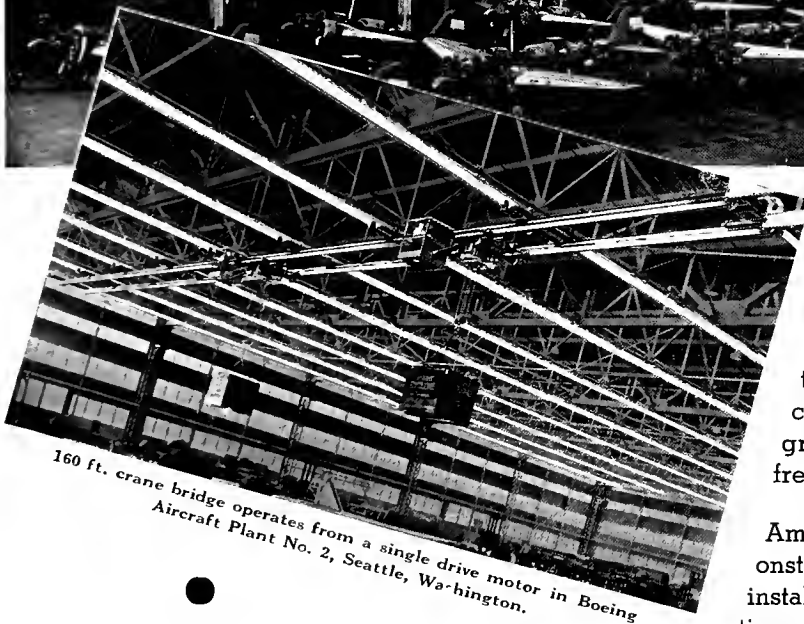
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3 ton monorail system in the Consolidated Aircraft plant at San Diego Calif.

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160 ft. crane bridge operates from a single drive motor in Boeing Aircraft Plant No. 2, Seattle, Washington.

254 Page Book used as a Technical Reference for overhead handling equipment will be sent on letterhead request.

Overhead handling proves all its advantages in the aircraft industry. Planes—parts—motors ride easily over monorail track with less damage and least congestion. Operations in various departments such as the hammer shop, dope shop and assembly can be performed in faster time and with greater accuracy when skilled operators are freed from the weight and bulk of heavy loads.

American MonoRail engineers repeatedly demonstrate their ingenuity with successful aircraft installations as in the plants illustrated. Consultation with them results in definite handling methods

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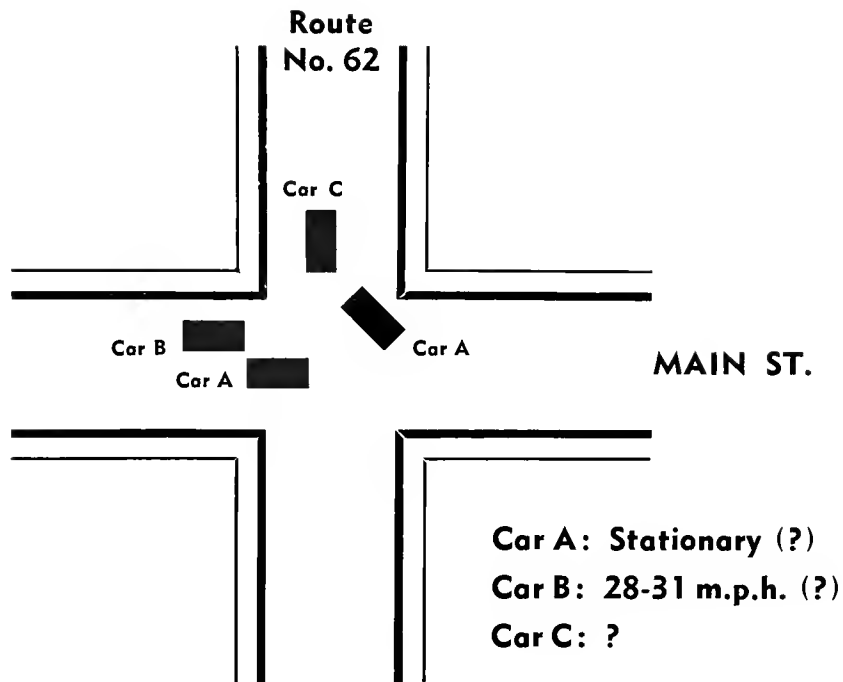
Large "Buffalo" fan being installed in the new Final Finish building of Consolidated Aircraft Corporation.



This group of "Buffalo" Blowers, resting on the floor of the Maintenance Dept. will be equipped with ducts suitable for ventilating the interiors of hulls and fuselages under construction for the workmen.

"Buffalo"

Heating, Ventilating
and Air Conditioning Equipment



● **NEVER MIND** THE MAP, friend, we can't figure it out either. Not even after we talked to Joe. He says that **he'll** never know—things happened too fast. How in the world 17 cars (Joe swears there were at **least** 17) could whirl through that intersection at one time—and nobody get hit—is a mystery.

Only effect was on Joe — who suddenly realized how close he came to leaving all his future plans tangled up at that cross-

ing; to paying a third of his wages for the next fifteen years on a damage suit!

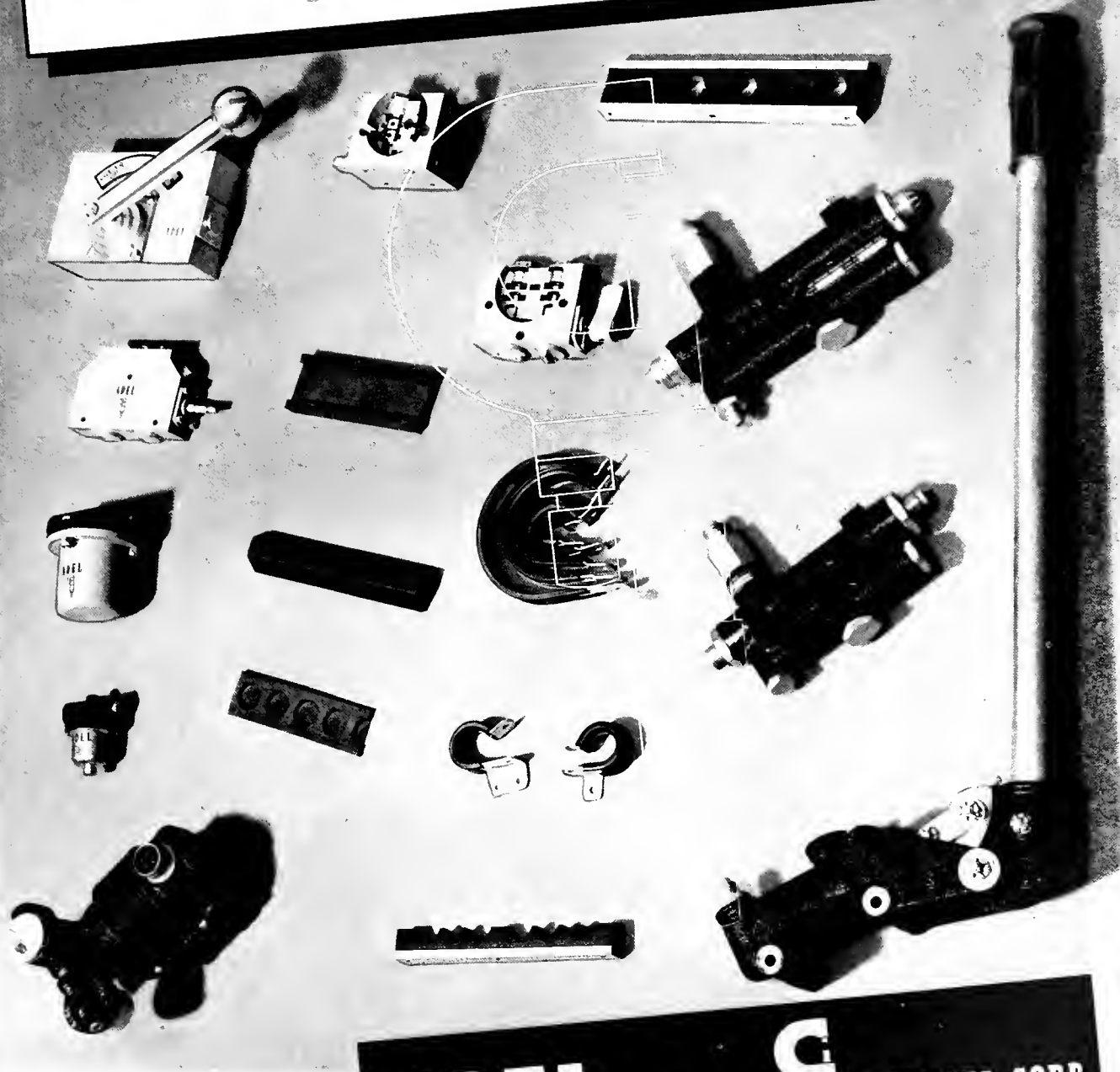
(Next morning, bright and early, Joe was waiting at our office door. Couldn't get insured **fast** enough!)



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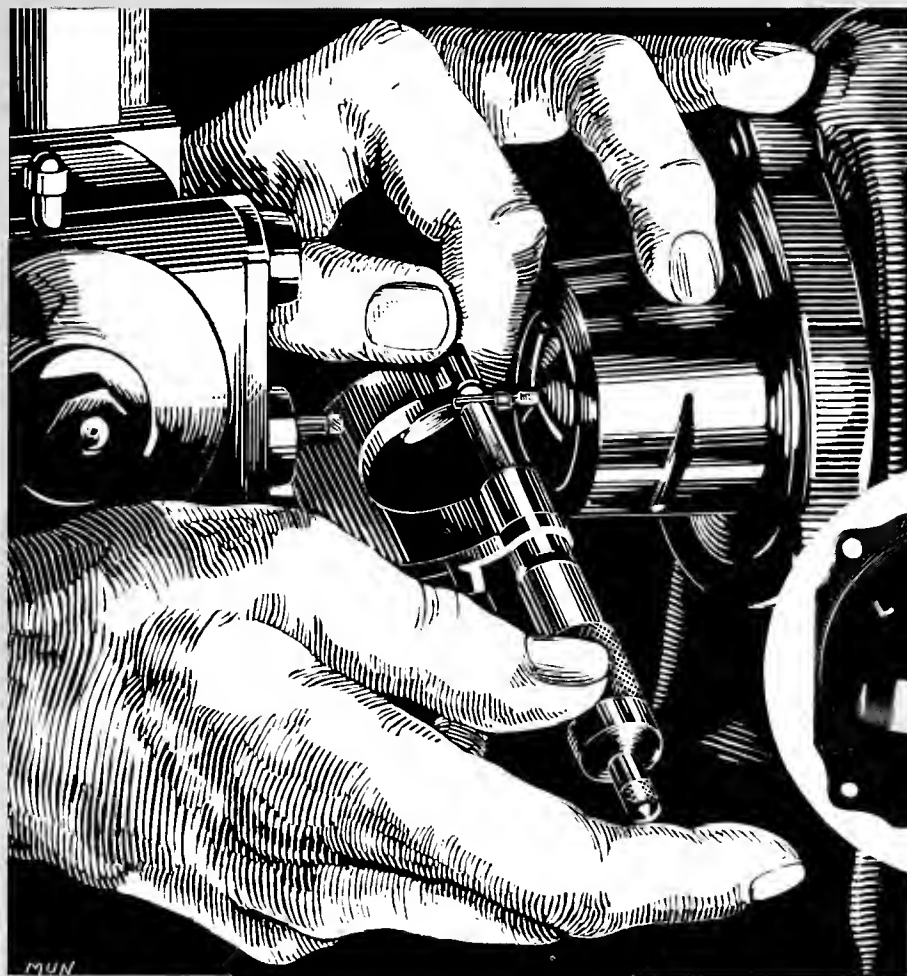
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CONSOLIDATOR

VOLUME 5

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DECEMBER • 1940

NORMAN V. DAVIDSON, EDITOR



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WORD OF APPRECIATION . . .

A more stimulating and gratifying co-operation could hardly have been imagined, than that which was encountered from every angle in the production of this special issue. It appears that we received an exact counterpart of the same spirit of co-operation which is now in full swing in the production of our aircraft for defense needs . . .

We have a distinct honor therefore, in presenting to you; our contributors, our advertisers, and the efforts of our collaborators. We regret only the mechanical impossibility of thanking individually in these pages, all those whose efforts have contributed to bring this issue into being. To all and everyone, our appreciation . . . and our sincerest thanks.



THE WHOLE WORLD'S AHEAD OF US . . .

WHEN the present strife is behind us . . . when men learn to reason and to flavor with tolerance . . . to deal justly . . . to weigh their differences and our differences calmly, and without prejudice arrive at a settlement commensurate to all . . .

Then will aviation blossom forth, for then it will be understood that to quibble over imagined markings resting on the surface of our globe, is to realize none of the smallness of such action. To quibble, to strive to dominate by force and blast the surfaces provided us, is to recognize values in only two dimensions, when really there are three. . .

Above is a trackless, moving, flowing element that belongs to all the world and cannot be divided; for as we talk, and through the night it moves, changing constantly to remind us of our smallness in looking at surface values alone . . . Why not look up and plumb its depth?

CHRISTMAS GREETINGS



THE design and manufacture of aircraft now constitutes a major industry in this country, after many lean years of struggle. It is obvious that we are entering upon an era of great aircraft development. This company is maintaining its leadership in the industry and striving willingly to meet all demands upon it by our Government.

Airplanes have attained great efficiency in speed, range, weight-carrying capacity and safety. Cost of operation has been reduced until it now compares favorably for certain traffic with that of railroads.

When one realizes that our airlines today are carrying less than 9 percent of the Pullman traveling public, that in 1940 air-mail revenue was less than five percent of postal revenue, air-express totaled only \$1,500,000, and little or no air-freight has so far been carried, it will be readily appreciated that, with commercial and private flying steadily increasing, commercial aviation will utilize all the available aircraft manufacturing facilities in our country when military orders are reduced.

The greatest demand at the present time is for military aircraft. Adequate air-power is essential to national security. Down through the ages history has demonstrated that a new weapon, once adopted, has been constantly improved and put to increasing use. Periodically, nations enter into limitation agreements on certain equipment, only to redouble the armament race when agreements expire or are scrapped.

Here, at the *Consolidated Aircraft* factory, with a back-log of orders of more than \$315,000,000, the volume of orders on hand and in sight assures our employees of work for several years.

With the completion during the next few months of the additions to our plant at Lindbergh Field, we shall have reached our limit of expansion on this field and have completed our plans for enlargement when we built our first building in 1935.

To fill orders on hand, we are now engaged in the construction of a parts plant with a total covered area approximating 1,550,000 square feet on Pacific Boulevard, about a half mile from our home factory. When this new plant is completed and operating we shall have more than 30,000 employees, with a payroll of about \$5,000,000 a month.

The regular federal and excess-profit taxes take approximately 62 percent of gross income; but as the two plants should annually produce \$150,000,000 of airplanes and parts and we have not had to issue more stock to cover the cost of the added facilities, the net yield to our shareholders should be satisfactory.



REUBEN H. FLEET
President-Manager

Apparently, until the temperament of mankind changes, world peace cannot be enjoyed in the absence of power capable of forcing and enforcing it. Such power is air-power, augmented by naval-power, and by an army where occupation and policing of territory is necessary. Nothing within its range can stop aircraft; its range is now a continent or an ocean. Let us hope that when this war ends, possession of such aircraft, without its employment, will guarantee "peace on earth, good-will to men."

In wishing our workers, stockholders and neighbors a Very Merry Christmas, it gives me pleasure to predict for them also a Prosperous New Year, as far as their relationship with *Consolidated* is concerned.

R. H. FLEET.



BY May next, we expect to employ more than 30,000 men in our plants, which will be an increase over our present employment of about 16,000. For some time only one out of every five employees has been a resident of San Diego and, undoubtedly, this percentage will diminish.

In addition to our own expansion, other manufacturing concerns, plus the Army, Navy, and Marine Corps, have had large increases in personnel, making the housing situation in San Diego even now very critical.

According to the 1940 United States Census, the population of San Diego was 202,038, and it has been estimated by the Chamber of Commerce that within the

population of 45,530 persons who will reside in private homes; in addition to 16,050 enlisted men who will be housed in barracks and camps.

With the complete cooperation of the City of San Diego and various branches of the Government, the necessary facilities to meet this situation have all been provided for and the program is now going full speed ahead.

The Committee on National Defense has allocated \$15,000,000 for the construction of 3,000 new housing units for employees of *Consolidated* and other local aircraft factories. The Navy has recommended expenditure of \$1,500,000 for an interceptor line to improve the sewage



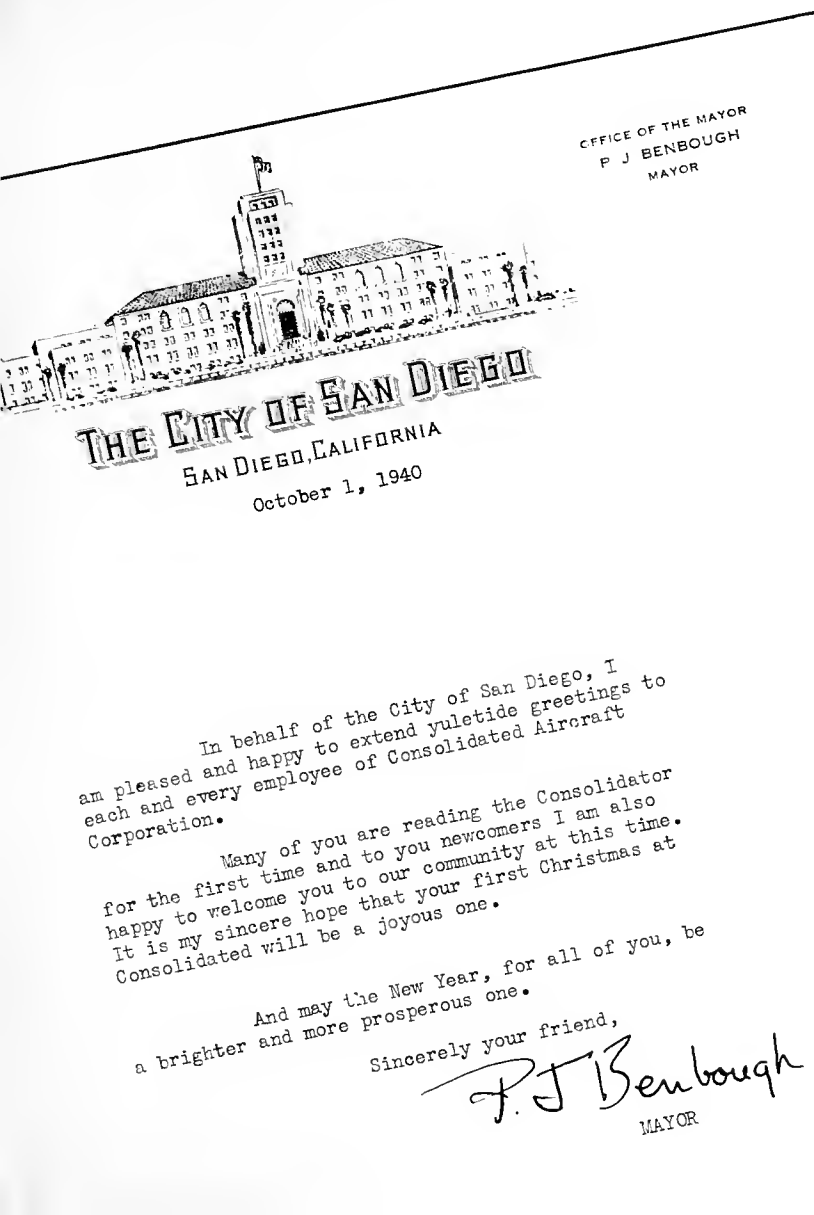
OUR CITY EXPANDS...

next eight months, the influx caused by the additional expansion (considering that sixty per cent of the men will be married) will mean a total increase in the

situation, plus \$375,000 for construction of a sewage treatment plant. The city has

By EDGAR N. GOTT,

Vice-President & Public Relations Director



voted \$4,300,000 for additional water supply and water distribution system. The San Diego Gas & Electric Company is constructing a \$1,000,000 power line to bring additional electric power from Boulder Dam and contemplates the construction of a \$3,000,000 steam generating plant at the foot of Tenth Avenue; the Navy has awarded a contract for \$3,800,000 for the construction of 1,200 new family housing units for enlisted personnel; the Federal Government is allocating substantial sums to the San Diego Vocational School for the training of additional aircraft factory workers.

Additional telephones, stores, fire equipment, police, dining rooms, groceries, school teachers, farmers, etc., will also be necessary, in addition to added airline, railroad, steamship and other facilities too numerous to mention. It can be seen that, in order to build the planes that we have contracted for—a huge job in itself—we have had to build not only new factories but also arrange for the building of a good-sized city. Truly a Herculean task.

In behalf of the City of San Diego, I am pleased and happy to extend yuletide greetings to each and every employee of Consolidated Aircraft Corporation.

Many of you are reading the Consolidator for the first time and to you newcomers I am also happy to welcome you to our community at this time. It is my sincere hope that your first Christmas at Consolidated will be a joyous one.

And may the New Year, for all of you, be a brighter and more prosperous one.

Sincerely your friend,

P. J. Benbough
MAYOR

WE have built, are building, and undoubtedly will continue to build land craft for our armed forces. And they will continue to have their vital place in our armed defense, but since it is well to consider every possible advantage in a time of emergency, perhaps it would be interesting to point out briefly some of the advantages of the seaplane side of aerial defense. These, to the general public at least, are not so generally well known.

Landing fields for large land aircraft cost millions to provide. They must have hard surface runways which may be destroyed by enemy bombardment. Land fields as compared to water fields are necessarily small resulting in concentration of buildings and flying equipment which become focal points of enemy attack. By such attack large aircraft on the ground are often prevented from taking off on account of the relatively small destruction of runways and thus can be destroyed or grounded for a long time, while large aircraft in the air cannot land. The cost of maintenance of land field landing areas amounts to considerable sums while suitable water areas cost comparatively nothing to maintain. Thus, whether military

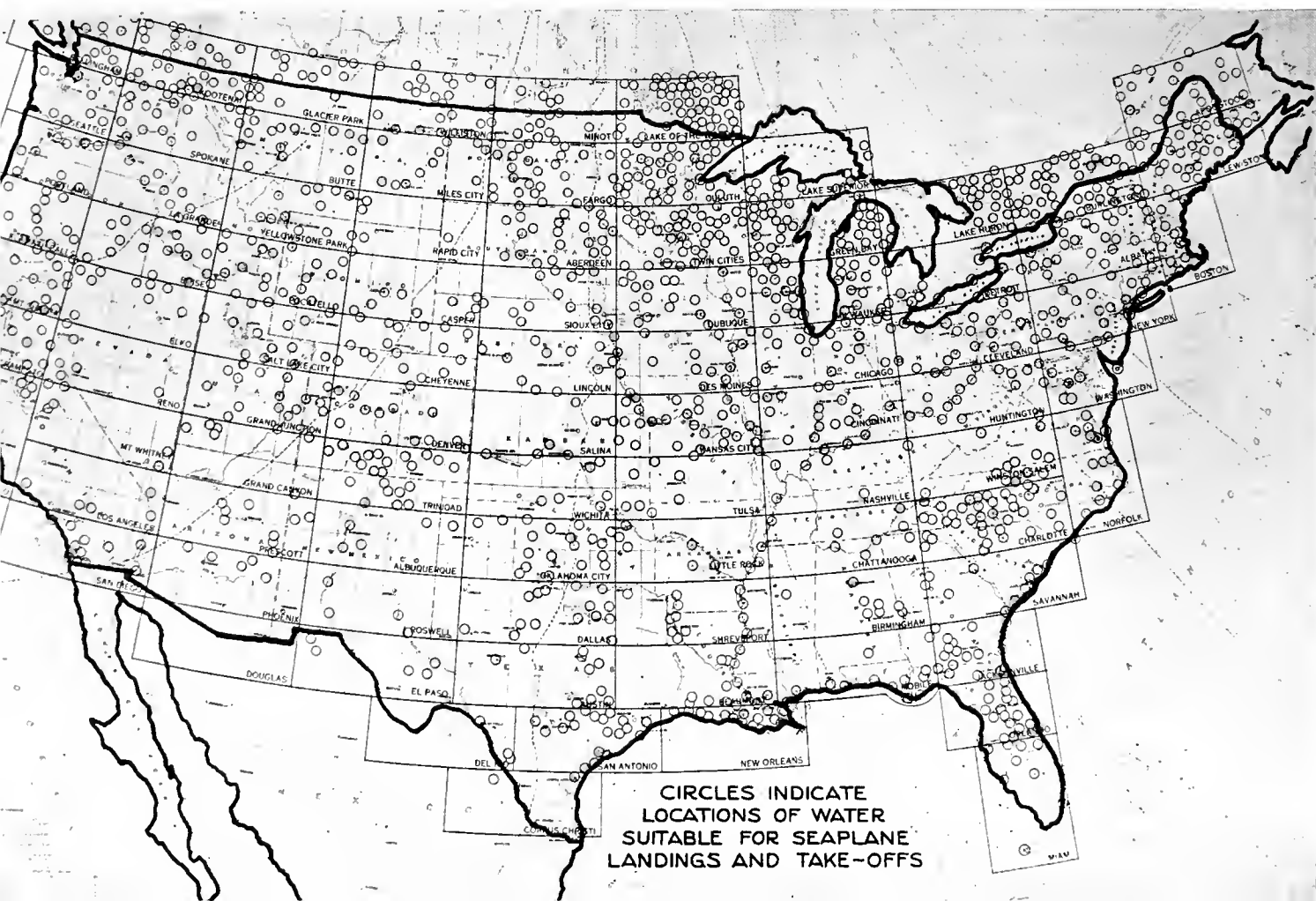
value be expressed in hitting power per dollar invested or in man power devoted to fighting, the factors appear to be in favor of water type particularly in view of field cost, the amounts of equipment, and large number of men who must be available (whether destruction occurs or not) to effect essential quick repairs on land landing areas in wartime. Thus in time of peace, the military strength of the nation would be much greater per dollar expended and in time of war the man power and the dollars would be more effective.

It is impossible to blow up water landing areas. Such areas are plentifully located throughout the United States and our possessions. The entire East Coast from Norfolk south to Key West is sufficiently ice free and is plentifully provided by nature with protected water. The Caribbean and the Gulf of Mexico offer innumerable suitable areas. In the region of the Panama Canal there are particularly good locations where large numbers of water type equipment could be based. The West Coast as far north as the Aleu-

tian Islands of Alaska is plentifully supplied with ice free and protected water. The interior of the Continental United States has innumerable large and small bodies of water located far enough south to be ice free in winter and yet far enough north so that equipment located on these waters would have sufficient range to bomb out any enemy that might become established as far north as the Arctic Circle. To provide fields for large land planes in equally strategic locations would be prohibitive in cost and regardless of cost would be impossible at some of the most important places because of the nature of the terrain. A small lake of only five miles in diameter offers the opportunity of establishing a base with as many as fifteen buildings more than a mile apart. Supply buildings, overhaul shops for wings, hulls, engines, etc., can thus be separated to avoid a concentrated target.

Radio beam and blind landing facilities can be used to insure safe return for night and thick weather operation. If the enemy comes in on the beam (in thick weather or darkness) to a properly laid out water base, it is practically impossible for him

SEAPLANES AND



to find the buildings and he can't blow up the water areas. On the other hand, he could follow the beam into a land field and quickly destroy it.

Water fields even though located at the front line can continue in operation until the last ship is lost. Land fields even though far in the rear might be put out of commission at the critical moment with all their equipment on the ground.

In time of war it would be comparatively easy to ferry large quantities as fast as produced across the oceans because there are a great many locations to use for servicing enroute. Land planes under similar conditions would be forced to use a few fields established at high cost; these would become focal points of attack. Since it would be vital to the enemy to stop such ferrying, it would be simple for him to concentrate on these and keep them bombed out to such effect that it would be impossible to ferry any aircraft except those having sufficient range to make the flight non-stop. Even then they would probably find the land fields destroyed and have no place to land on arrival.

cations or in the lee of an island or a point of land.

Flying boats for similar range are 90% as fast today as land ships. They have no practical limitations as to size. They now carry proportionately heavier loads than land planes and as they get larger, and

Editor's Note: Since the moves of the present conflict have thrown new light on aircraft and military tactics, awareness of all possible factors involved may in itself be considered a strong step in defense preparation. Here is presented a brief discussion prepared to point out the merits surrounding seaplane operation. This paper was originally prepared by Mr. Van Dusen in March, 1938, and has been revised by him.

NATIONAL DEFENSE

A study of world maps shows that large water types may be flown overland throughout practically all parts of the world with greater safety than large land planes. There are few large landing fields as compared with water areas. Forces taking possession of or losing territory by conquest can always find suitable bases for water type equipment, giving them the ability to strike from points nearer the front with the heaviest bomb loads.

In modern practice flying boats used for scouting with the fleet have demonstrated their ability to keep the fleet informed of all vessels on the surface well ahead of the fleet. Flying boats can in any ordinary weather be stationed off-shore resting on the surface when not in the air and can thus keep the shore forces advised of any approaching enemy either on the surface or in the air. Land planes are not nearly as effective for this purpose and it takes a great many of them to accomplish similar results since they can only fly out and immediately return.

Flying boats can be serviced at sea from a merchant vessel in ordinary weather. In stormy weather they can be serviced in protected bays in obscure lo-

there will be very large ones built, they will be as fast or faster than the best of the large land planes and they will carry proportionately greater loads longer distances. They are generally believed to be slower because of the reduced speed at which they travel in order to accomplish long range flights.

For the rapid movement of troops in time of war it appears that the large flying boat is more suitable in a greater number of instances, than would be land planes, because of the indestructibility of their landing fields, and far more suitable than surface vessels because of their greater speed and consequent safety.

It is possible to build troop transport flying boats with extraordinary gun protection capable of transporting 200 men at a cruising speed of over 200 miles per hour. This means that at 200 miles per hour, 100 of these ships could carry 20,000 men 2,000 miles each day of operation. One plane alone could transport 200 men a day for a distance of 2000 miles allowing four hours for loading, unloading, and servicing, and disembark them in the interior or other obscure location away from deep sea ports (which are usually focal

points of enemy attack) without assistance by other forms of transport and usually much nearer to the point of action. After the complement of men had been advanced by these troop air-transports, each flying boat could carry 40,000 pounds of supplies per day; or for the 100 planes, 4,000,000 pounds of material, 200 lbs. per day per man, which should be sufficient to keep the troops supplied. Of course if these transports were used for the transportation of artillery and tanks, the number of men moved would be cut down proportionately, but the effectiveness of the troops would be greatly increased. Commercial long range passenger flying boats could be quickly converted to troop transport use, which means that our overseas commercial airlines are a major contribution to our National Defense.

Flying boats with performance comparable to the best land planes, equipped for bombing, with extraordinary protective armor for their personnel and more gun power, should be particularly effective in meeting America's long range defense problems.

The new military bases the United States
(Continued on page 67)



By C. A. VAN DUSEN, Vice-President and Works Manager

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PHOTOGRAPH No. 1 illustrating this article is only vaguely familiar to the majority of Consolidated's personnel, although those who were here in 1935 and the early part of 1936 will recall it.

It shows the original Plant as it was completed in the fall of 1935 when Consolidated moved to San Diego, California, from Buffalo, New York. This original

Photograph No. 2 shows the Plant at the time of completion of the 1936 construction program, with a total usable floor area of 441,832 square feet. In connection with the 1936 expansion it was decided to pave the entire yard area within the boundary fence with asphalt paving and thus provide additional space outside the buildings which could be used for



*By Wm. A. MALONEY,
Plant Engineer*

EXPANDING...

San Diego factory building had a usable floor area of 246,841 square feet, or approximately 10,000 square feet more than was occupied in the Buffalo Plant during its peak period. Early in 1936 when the corporation was awarded the XPB2Y-1 contract, it became at once apparent that there was not sufficient space available in which to build an experimental ship without seriously delaying progress on the PBY-1 contract. In fact, it was also apparent at about the same time that in order to meet scheduled delivery dates on the PBY-1 contract, additional floor area would be required in nearly every department.

When the production requirements were realized, it was decided to enlarge the main factory space and to build a separate building to be used for the construction of experimental airplanes and to house the Engineering Department and Raw Material Stock Room.

various final assembly operations. This added 212,462 square feet, giving a total area of 654,294 square feet available for manufacturing operations.

Between the completion of the 1936 expansion program and November, 1939, there was no outward change in the appearance of the buildings. But additional mezzanines were erected at various locations throughout the Plant which increased the manufacturing area to 668,594 square feet.

Due to the outbreak of hostilities in Europe in the fall of 1939, the United States Government saw the necessity of increasing the strength of its armed forces. As a part of the expanded defense program of the Government, Consolidated was awarded the PBY-5 contract. The accelerated delivery dates on this contract required a further expansion of manufacturing facilities, and once more we were launched on a construction program.

Photograph No. 3 shows the Plant at the completion of the 1939-1940 Expansion Program, with a total floor area of 867,126 square feet and a total paved yard area of 828,248 square feet, giving a grand total of 1,695,374 square feet available for manufacturing operations.

Before the completion of the 1939-1940 Expansion Program, further orders in connection with the National Defense Program made it apparent that the then expanded Plant facilities would not be adequate to handle the orders which had been received.

At the time this is being written a further expansion of the Plant is well under way, and by January 15, 1941, will be practically completed. This expansion will increase the floor area to 1,630,026 square feet and the paved yard area to 1,100,141 square feet, giving a grand total of 2,730,167 square feet.

With this expansion the relatively small Plant of 1935 has grown into a major manufacturing enterprise. During this five year period there has been an increase of 1,006% in manufacturing areas. This would seem to be a major accomplishment. And now look what happens! At the time this is being written, preliminary plans and negotiations for the erection of a Parts Manufacturing Plant are under way; and by the time this article is printed, construction operations will undoubtedly have been started. This new plant will have an approximate total floor area of 1,539,125 square feet. Such is growth in the aircraft industry today!



GEARED

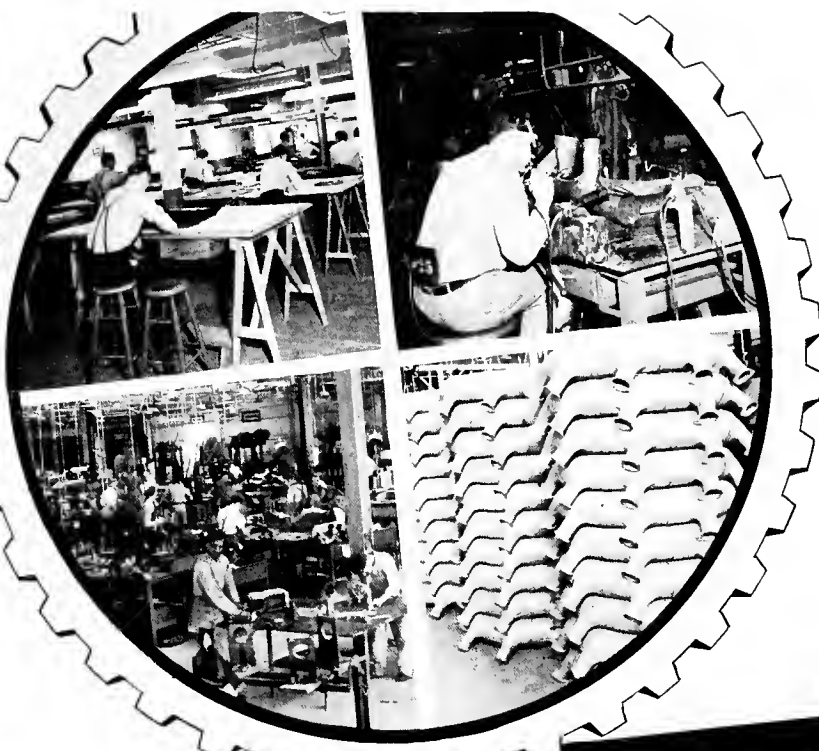
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AIRCRAFT TOOLING...

By PHIL KOENIG, Tool Supervisor

Tooling, the alleged "Bottle-Neck" of the aircraft expansion program has been simplified at the *Consolidated Aircraft* plant by the inauguration of a most complete system of coordination.

The problem of production tooling begins when sufficient engineering information has been made available, and as soon as this is well under way, it becomes possible to begin the layout of "Master Templets and Assembly Boards" which control the fabrication of all additional templets, form tools, jigs, and fixtures necessary for production.

When engineering drawings are released to Production Planning and Tool Design Departments it immediately becomes necessary for Tool Design Planning activities to place at the disposal of Production Planning all possible information regarding what tools are to be made, and what operation sequence is to be followed. At the same time, tool records and tool orders are made up and distributed to those departments in which the tools proper are to be fabricated. Any changes in tooling either by reason of engineering change or shop processing must be immediately transmitted to Production Planning. By this method it is possible for all to know what tools are to be made available and what operation sequence is to be followed in the manufacture of any part. Any delay or impediment in the routine procedure of this particular stage of operations tends

to tighten the so-called "bottle-neck" which is the nightmare of all Production Control Operators.

The various activities under tool supervision are divided into four major groups: Tool Planning and Design, Tool Room, Pattern Shop, and Big Fixtures.

Tool Planning and Design is sub-divided into five group activities.

The Sheet Metal Group functions to process and design the tools for all detail parts which are made from sheet or extruded stock. This includes dies, both crank and press and drop hammer, bench forming tools, assembly jigs and fixtures, templets, samples and sub-assembly fixtures.

The Special Machinery Group has charge of the design and fabrication of all special machine tools designed and built by the Tool Department. In addition, this group overlaps and coordinates with the Sheet Metal Group in the design of tools for welding and hydraulic press production.

The Big Fixture Group is responsible for the design and fabrication of large assembly jigs and fixtures.

"Trouble Shooting" or Shop Liaison functions to expedite the fabrication of any or all parts which require additional processing or design attention due to changes, etc.

The Machine Shop Group plans and designs all tools for parts made by the Machine Shop including the greatest ma-

jority of special cutting tools and equipment. This group also sets up and maintains a complete file of the operation sequence of every part made in Machine Shop.

Consolidated Aircraft's machine tool position in the industry is rather unique. Making one of the longest and largest of industrial moves in 1935, this plant moved from Buffalo, N. Y., to San Diego. In so doing all tools and machines that were not thoroughly up-to-date were discarded, thus insuring that the new San Diego factory would house nothing but modern and efficient tools. Unparalleled expansion since 1935 has meant more, and increasingly more of the newer machines.

A large percentage of these machines are operated by the Tool Room. This activity, under the immediate supervision of the Tool Room foreman, is also subdivided into groups.

Tools are not only pliers, screw-drivers

and monkey-wrenches, but in much larger numbers, jigs, dies, assembly fixtures, special hand tools, cutting tools, riveting equipment—any article that is used to simplify part production and provide for the rapid precise manufacture and assembly of duplicate parts. Aircraft tools can be standardized only to a small extent. They range in weight from about a few ounces to more than five tons. These are tools that can be balanced on one's little finger or tools that occupy a floor space of 15 by 60 feet. *Consolidated* totals more than one hundred thousand active tools.

Four general kinds of blanking dies are used, the type being determined principally by the size of the work. For the smallest sizes (up to 3 inches by 3 inches) a punch is first made of unannealed steel and zinc alloy molded around it for the die. For progressively larger dies, zinc alloy sheet and hardened crucible steel are used. The largest dies are cut out of steel to 3/16 inch larger than the finished die shape so that inserts to this thickness may be soldered in place. These require no filing. For simplicity in design, use, and cost, rubber knockouts are used instead of steel knockout pads. Rolled Kirksite sheet is also being used for large and small dies.

A multiple hole punch that punches up to 200 holes at one time, with any spacing over 3/4 inch apart for the holes, is another advancement to speed-up, and sim-

(Continued on page 68)

*A*merican leadership in aircraft manufacturing and operating is based on far-sighted, modern engineering methods and all-around mechanical excellence.

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NOTES FROM THE LAB.

By TOM GALVIN

MATERIALS used in aircraft construction are probably more thoroughly tested than those employed in any other industry. As an engineer designs to greatest efficiency, it is imperative that materials of a high strength/weight ratio be used. It would therefore, be decidedly dangerous if the exact strength were not known.

When various materials are received in the laboratory the analysis is determined or a physical test is made, or both, and the report is sent to the receiving inspector. The material is placed in stock under its proper classification to be drawn when needed. A 1" S. A. E. 4130X Bar of .29 carbon content and a 1" 4130X Bar of .32 carbon are considered similar, as they both come within the .25 to .35 limits. If heat-treated, for example, to 150,000 P.S.I. there probably would not be much variation in tensile strength.

However, there is one steel that does not permit such latitude in its subsequent heat-treatment. This is the corrosion-resistant (stainless) steel known as M286 which is used in highly stressed parts where corrosion is a problem. It conforms to an analysis of

| | | |
|-----------|-------|-------|
| Carbon | .08- | .15 |
| Manganese | .30- | .75 |
| Nickel | 1.25- | 2.50 |
| Chromium | 15.5 | -17.5 |

Thus, if two M286 steels, one of .09 and the other .14 carbon were heat treated to 175,000 P. S. I. under the same condi-

tions, there would no doubt be a considerable variation in tensile strength. This is the reason why George Steringer, our heat-treater, needs to know the exact carbon content of every lot of M286 so he can vary the drawing temperatures with each point of carbon to produce uniformity of results. Incidentally, this is the only heat treatable stainless steel used here in the plant.

The more commonly known 18-8 steel (stainless) has excellent corrosion resisting properties but will not respond to heat-treatment. An increase in its tensile can only be obtained through cold working—such as swaging operations on cables.

The two contemporary metals of 18-8 are K Monel and Inconel. They both are in a sense superior inasmuch as they can both be heat-treated. K Monel is an outgrowth of the Monel Metal used during the last World War. Its composition is similar to Monel with some 3½ per cent of aluminum added. Inconel, on the other hand, contains no copper, but is an alloy of Nickel, Chromium and Iron. It is one of the newer alloys to be introduced and is replacing the 18-8 steel in some instances.

The art of splicing cables is on the way out now that practically all cables are fitted with swaged 18-8 terminals. A sample of every lot of swaged cables is taken to the laboratory and tested for failure.

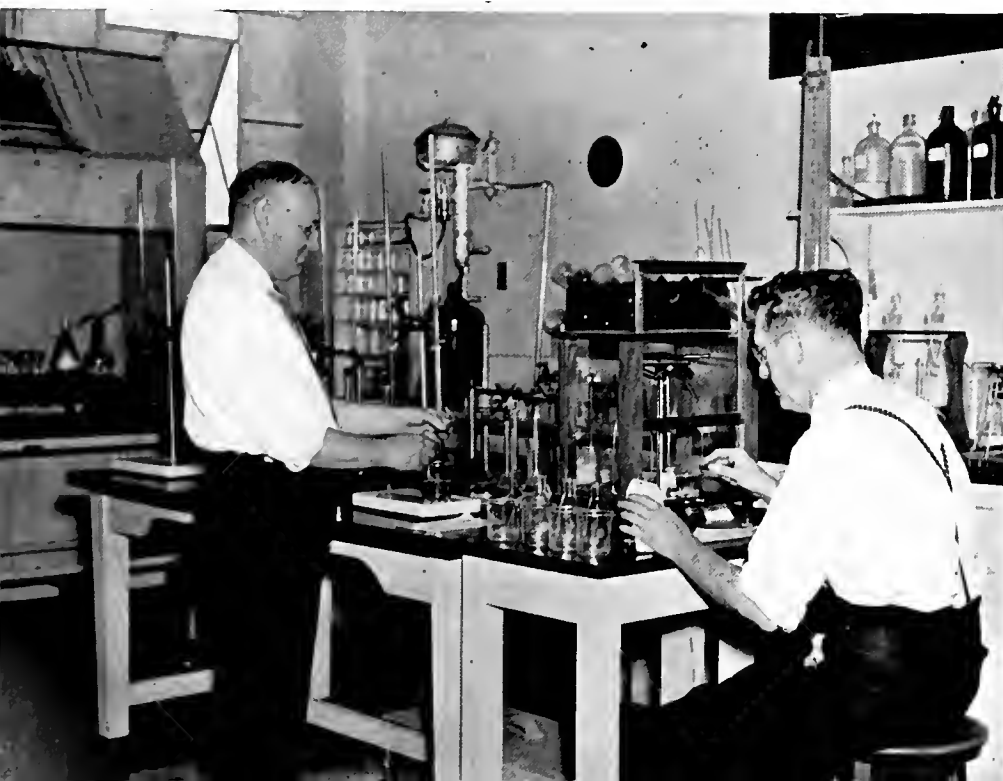
The laboratory has three tensile testing machines—a 5000 pound Olsen Hydraulic

which is excellent for small work, a 50,000 pound Riehle, which we use to pull most of the test bars, and a 200,000 pound Southwark Emery which can handle the large fitting. The latter two machines can also be used in compression.

When motor mounts are normalized in the heat-treat department, we usually give our heat-treater a helping hand. The practice is simple and efficient inasmuch as every man who assists in this operation is well versed in his duty and thus promotes team work. Briefly, the motor mounts are sprayed with an anti-scale preparation developed here in the laboratory. They are placed on a frame on the car furnace and heated up to 1650° F. After soaking in this heat for 50 minutes the mounts are withdrawn from the furnace, lifted off the car and placed on a steel plate. This steel plate is fitted with protruding studs over which are fitted the motor mount terminals. The mounts are bolted down and allowed to cool in air circulated by 4 air hoses placed some 15 feet away from the table. As a further refinement, heated 18-8 plates are placed over the studs, and the clamps also heated before placing the mount on to avoid chilling the terminals from contact with the cold steel plate. When a mount has cooled and has been removed from the plate, it very seldom requires straightening. A Chrome Moly tube, some 12 inches long, taken from the same lot of material used in the mount is wired to mount during the operation. This serves as a test bar to be later tested in the laboratory. The minimum requirement in tensile is 95,000 P.S.I., but the average test will usually be 25,000 pounds in excess of this. Leo Bourdon, who originated the idea of bolting the mount to a plate, saved his department a lot of labor through this clever scheme.

Early in 1939, the maintenance department started on the regeneration of the chromic acid, used in the anodic treatment, with very gratifying results. Prior to this time, the acid bath was usually changed after 4 or 5 weeks use, having broken down and lost most of its effectiveness. Specifically speaking, the hexavalent acid (Cr O_3) was reduced to the Tri-valent state $\text{Cr}_2 (\text{Cr}_2 \text{ O}_7)_3$.

John Violette and Tom Galvin, chemists, keep a watchful eye on the materials entering Consolidated's planes through chemical analysis. . . .



This electrical treatment which primarily dissociates water (in both) into nascent oxygen and hydrogen, allows the former element to unite with the spent acid and restore it to its original state Cr O_3 . In this operation, several lead plates are suspended in the tank to form the anode while the steel tank acts as the cathode. It might be stated that one tank after having been considered "spent" and about to be thrown out, was re-generated over week ends and thus lasted over a full year with good results.

Magnesium alloy castings which are about two-thirds the weight of aluminum are now used to greater advantage since the No. 7 treatment gives them a good protective coating to resist corrosion. Briefly this consists of pickling the castings in a 20 per cent solution of Hydrofluoric Acid, rinsing in water and then placing in a heated solution of 10 per cent sodium dichromate or dye (as the boys call it). Later they are placed in tung oil heated to 300°F . After removal, this oil surface dries and oxidizes giving the casting excellent protection. In a month's test in the salt spray, samples so treated stood up very well as compared with those without surface protection. The latter corroded so badly as to be almost unrecognizable.

The welders who qualify for their positions are required to pass the Army-Navy Test. This consists in furnishing the laboratory 3 to 5 "V" butt welds, 4 tubular butt welds, 2 crosses and 2 cluster and plate welds. All made from normalized

chrome moly steel. As the Army and Navy specifications are similar, to avoid duplications, both Army and Navy Inspectors are present to witness the results of the physical tests made. The welders who pass these tests are given papers to qualify them as Army and Navy Tested Welders. There is probably more work attached to the computation of the figures and making out the reports than to the operation of the testing machine.

Hydraulic fittings are proof tested in the laboratory to $2\frac{1}{2}$ times the load required in the ship. Thus a 1000 pound load would require 2,500 pounds oil pressure on the testing machine. Sometimes a fitting will let go and produce a deluge of oil, making more business for the cleaners. Ben Livers, of engineering, who has supervision of this work can testify to this.

We hear a good deal nowadays about the possibilities of plastic aircraft. At present the Engineering department is doing research work in this field here in the laboratory under the direction of Herb Hinkley. While this research started only last March, from the results of their findings to date I am sure they will have something interesting to present in the near future.

Chief Chemist, TOM GALVIN was chemist with the U. S. Steel Corp., Chemist at Curtiss Aircraft, Metallurgical Chemist in the Ordnance Dept. of the U. S. Army during the last war and associated with the Institute of Thermal Research at the American Radiator Corporation before joining Consolidated in 1929.



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Consolidated Model 32
—U. S. Army XB-24

costs, greater pay load or both. It should be understood that this particular aerodynamic improvement reaches its greatest value for long range operation and would be relatively less important for short distances.

Success of this joint development of the Model 31 wing by Mr. Davis and the *Consolidated Aircraft Corporation* led to its use on the Model 32 bombers now being produced for the U. S. Army Air Corps. This modern bomber permits great flexibility in bomb and fuel load so that full advantage may be taken of its high maximum speed, long range, and bomb carrying ability as operating conditions require. The use of this wing on both the land bomber and flying boat types is a long step toward standardization which is so essential to accelerated production. Use of the same wing on both types also permitted use of the same tail sur-

AERODYNAMIC ADVANCES

By HARRY SUTTON, Ass't Chief Engineer

NOT SO long ago the airplane engine manufacturers were given most of the credit for improved airplane performance. This was not without some justification because remarkable improvements were made in engine power with small increase in weight and size during a period when aerodynamic refinements were slow in finding their way into new airplanes. During recent years the practical results of extended aerodynamic research have appeared in many airplanes which have demonstrated outstanding performance. The predominance of monoplane construction, the elimination of external bracing, the universal use of retractable landing gears and the reduction of interference drag between various airplane parts, such as wings and fuselage, have all contributed greatly to the high speeds attained by modern airplanes. These were obvious improvements, however, for particular purposes there were other improvements not so apparent but just as important.

We in *Consolidated* have been particularly concerned with improving long range airplanes and one of the best ways to do that is to reduce drag at the speeds used for maximum range. Our search led to an investigation of wing drag which is a large proportion of the total and is susceptible of considerable variation due to wing plan form and cross-section profile. One particular section, developed by Mr. David R. Davis, in cooperation with

the *Consolidated Aircraft Corp.*, showed consistently lower drag when tested in the wind tunnel in comparison with other modern sections in general use. This advantage was also retained when the wing was tested in combination with a complete airplane model and after extensive study and tunnel testing this wing was first used on the *Consolidated* Model 31 two-engined flying boat. The outstanding performance of this airplane in the field of flying boats speaks for itself but, of course, did not prove that use of the *Consolidated*-Davis airfoil was the responsible factor since many other improvements were also made. As a further check on the wind tunnel comparisons, the wing drag was measured in flight by means of equipment developed by the California Institute of Technology. These tests corroborated the laboratory tests and assured us that we were realizing in the full scale airplane, the low drag at cruising speed which had been predicted.

This drag reduction, due entirely to relatively small departures from the conventional airfoil shape, permitted a very considerable increase in range and saved hundreds of pounds of gasoline. For military airplanes which fly thousands of miles any possible saving in the amount of fuel is of great value since it permits transporting greater offensive power to the objective. In commercial use the saving in fuel is equally important and is immediately reflected in lower operating

faces, making a large proportion of the total number of parts of the two airplanes identical.

Another development which has contributed materially to the improved aerodynamic performance of these airplanes is the use of more effective wing flaps. Combination of the *Consolidated*-Fowler type wing flap with the *Consolidated*-Davis airfoil permitted the use of higher wing loading and consequently smaller wing area and less drag than would have been permissible with the plain type of wing flap. The use of higher wing loading has been limited by the requirements that the take-off and landing distance must not be excessive and in these respects both the Model 32 and 31 have demonstrated considerable improvement over contemporary types, notwithstanding their high wing loadings. It is an acknowledged fact that high wing loading results in smoother flight in rough air since the usual rough air currents are not so effective in disturbing the flight path of the airplane. This feature is particularly important in bombing operations and in gunnery.

Advent of the tricycle landing gear has resulted in many fundamental improvements in the airplanes to which this principle has been applied. It was used on the very earliest airplanes, but as the airplane arrangement became more stereotyped, the third point of ground support was moved back to the rear of the

fuselage under the tail surfaces where it remained until within recent years. Prior to the development of effective wheel brakes there were sound reasons for this location since the large angle of attack of the wings during the landing run helped to slow the airplane down. The development of brakes called for a change to the nose wheel type of landing gear because there was considerable danger of nosing over due to too much brake application with the tail wheel type of landing gear. Airplanes were also basically unstable with respect to direction when the single wheel was placed behind the main wheels, whereas the tricycle arrangement is fundamentally stable.

The first modern attempts to use the tricycle landing gear encountered serious difficulty due to "shimmy" of the nose wheel and much effort and expense were applied toward a correction of this trouble. The use of simple hydraulic snubbers similar to those used in automobiles has eliminated this trouble and permits full realization of the inherent directional stability of the tricycle arrangement during ground runs. This stability is such that cross wind take-offs and landings can be made when necessary with no danger of ground looping which was so prevalent with the old style landing gear. Steering of the airplane while on the ground is also facilitated by use of the tricycle gear and vision of the ground by the pilot is greatly improved by the level attitude of the fuselage. *Consolidated's* first use of the tricycle gear was on the PBY type flying boat converted to an amphibian for optional use on land or water. It has always been difficult to provide a satisfactory landing gear on a seaplane or flying boat because the float or hull arrangement required for satisfactory water operation did not lend itself readily to proper proportions for a landing gear. The long bow needed for satisfactory water characteristics was well suited to the requirements of a tricycle landing gear and the PBY amphibian is an exceptionally good land airplane. The level landing attitude permits excellent ground vision and the nose wheel permits maximum brake application on the main wheels with no hazard. Use of the nose wheel also places the airplane in its minimum drag attitude during initial stages of the take-off ground run, which is important in large airplanes.

Application of the tricycle principle to the Model 32 bomber has met with equal success and is responsible in a large measure for its ability to operate satis-

factorily from small airports. The combination of a tricycle landing gear with *Consolidated-Fowler* flaps permits a steep approach over obstacles with the fuselage in a level attitude for a three-point landing and with excellent vision for the operating crew. The numerous full load take-offs and landings made from the restricted area of Lindbergh Field, many of them under cross wind conditions, are ample evidence of the ability of this airplane to perform satisfactorily under emergency operating conditions. An incidental advantage of the tricycle landing gear, which is by no means unimportant, is that the level fuselage attitude when on the ground is of great assistance when loading the airplane and in accomplishing normal maintenance operations.

Each of the above improvements have contributed separately and in combination to greater operating efficiency in both the flying boat and land plane types. There are many other detailed departures from past practice which are not so noticeable, but which all add their part in producing the Models 32 and 31, acknowledged leaders in their class. Constant striving for betterment in aerodynamic and structural refinement combined with simplification of construction is essential to improvement and we in *Consolidated* have never subscribed to the statement so frequently made that all of the possible major improvements have already been developed. A receptive and inquiring mind will always find a better way of doing any job.



Consolidated Model 31—
twin engine flying boat.



HARRY A. SUTTON—winner of distinguished Flying Cross and MacKay trophy through investigation of Spinning Characteristics conducted for the Army Air Corps. Joined *Consolidated* as Assistant Chief Engineer in September '35.

By B. W. Sheahan,
Engr. in Charge of Drafting & Personnel

THE FUNCTION of the engineering department is to get engineering releases out in time so that the shop can meet the required airplane delivery schedules. This, however, is seldom a clear-cut proposition for the following reasons:

Lack of control by the contractor of the design and development since this is, to a large degree, controlled by the customer.

Delays always occur due to the necessity of submitting all relevant features of the design for approval prior to release for construction.

Since the customer specifies the perfor-



ENGINEERING and DRAFTING PROBLEMS

mance of the airplane in considerable detail it hardly seems equitable that he should also dictate the means by which this end shall be achieved. This is particularly true in the case of Government contracts where the builder is not relieved of any responsibility for the proper functioning of all features of the airplane, even though the design, in its development, is controlled by the Government. While it is admitted that the Government engineers charged with this control are extremely experienced and capable and that they frequently supply ideas which result in betterment of the design, none the less the time required for reaching agreements concerning design details should be balanced against the possible design refinement. While this situation is subject to compromise, a reasonable solution seems to lie in placing the customer's design supervision in the hands of a capable representative stationed at the builder's plant who is authorized and directed to make engineering decisions forthwith.

The rapid increase in the aircraft in-

dustry has not only multiplied the engineering problems but, in addition, has made their solution more difficult because it has created more jobs than can be filled by the available men having experience in aircraft engineering. Therefore, anything which can be done to simplify procedure and eliminate red tape will reduce the engineering man hours required and assist the National Defense program. The principle drafting problem is one of lack of trained personnel. In the interest of building sufficient aircraft for National Defense, the united efforts of all of the aircraft manufacturers will be required. The solution, therefore, for lack of trained engineers does not lie in hiring men others have trained and are employed but rather in establishing training programs. A great deal has already been accomplished toward training engineering personnel, both by aircraft companies and by accelerated course in aircraft engineering given at certain colleges. It is believed that considerable harm is being done to the aircraft industry and the Na-

tional Defense by personnel movement from one job to another. This causes endless confusion and hinders rather than helps the Industry to produce airplanes.

In the expansion program it has been necessary to hire many inexperienced engineering graduates. This has made clear that most engineering graduates do not have much of an understanding of what is done in an aircraft engineering department. Briefly aircraft engineering covers the following general divisions of work:

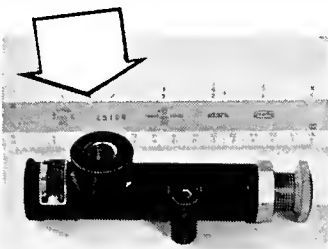
- Preliminary design and aerodynamics,
- Airplane performance,
- Structural research,
- Stress analysis, testing and weight control,
- Design and drafting.

Colleges give good training in the theory of structures, aerodynamics, airplane performance, as well as the usual engineering mathematics, physics, mechanics, etc. Very little training, however, is given in design and drafting. Since the latter com-

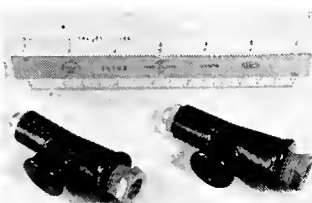
(Continued on page 72)



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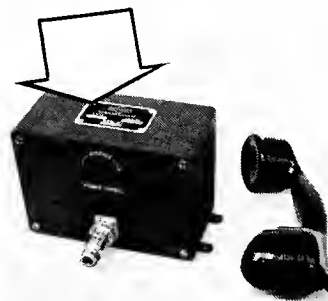


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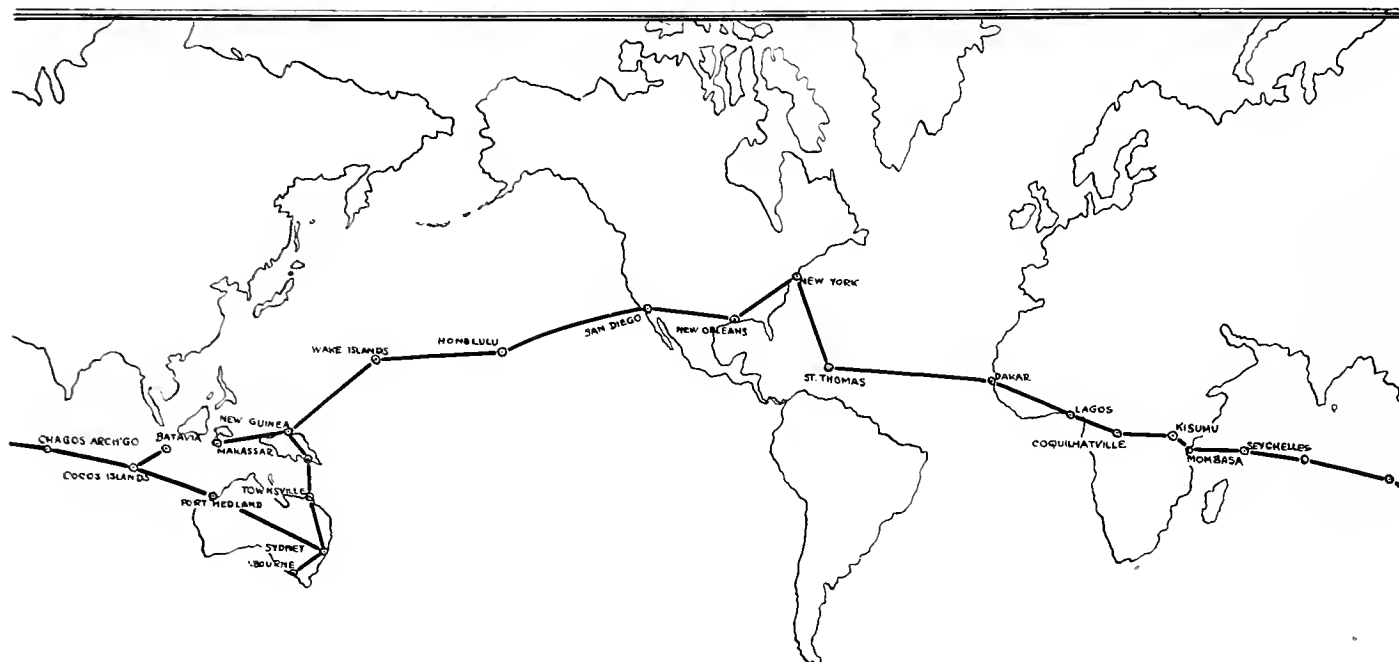


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THE GUBA'S FLIGHT...

WHEN the Guba lifted from the waters of San Diego Bay on June 2, 1938, we were on our way to New Guinea, over 6000 miles across the Pacific. We knew the Guba would be traveling air trails never flown before. But we didn't know that before she settled down on San Diego Bay again, she would have made a complete circuit of the globe the longest way around. The flight was incidental to our third expedition to New Guinea. This time we planned to spend a year in the Netherlands area collecting, as usual, mammals, birds and plants. The Guba's principal function was to transport men and supplies to the collecting camps in the interior.

As the success of the expedition and the lives of its members depended in many ways upon our plane, we put the Guba—which in Motu language means "sudden storm"—her equipment and ourselves through rigorous test flights. From November 22, 1937, to May 28, 1938, we made fifty-three test flights. One was non-stop from San Diego to Miami and another from San Diego to St. Thomas, Virgin Islands, by way of Miami.

The most interesting test was the one to determine how much the Guba could lift on a high altitude take-off. We had to know that because one of our main inland camps in New Guinea was to be Lake Habbema, 11,000 feet above sea level

and about 200 miles from Hollandia, our base on Humboldt Bay.

For that purpose we went to Lake Tahoe in California, 6000 feet high. After determining the power drawn from the engines at 12,000 feet over the lake, we made take-offs using power not exceeding that available at the higher altitude, building up loads until the ship was barely able to rise from the water. We found she could get up with a gross weight of 23,700 pounds. When we finally took off from Lake Habbema we found we were able to carry 1800 pounds more than that.

With our engines overhauled and new ones shipped to Hollandia, we were ready on June 2nd for the trans-Pacific flight. The crew consisted of Russell Rogers, copilot; Lewis Yancey, navigator; Raymond Booth, radio operator; Gerald Brown and

By RICHARD ARCHBOLD

Stephen Barrinka, flight engineers; and I, pilot.

At 2:30 p.m. we gave her the gun and were off San Diego Bay in 32 seconds. San Clemente Island, 60 miles from San Diego, was the last sight we had of North America. We flew steadily at 140 knots through a clear moonlight night, maintaining constant communication with San Diego and the Navy. About 170 miles from Honolulu, we spoke for the first time with PO6ZA, our own radio station in Hollandia, which reported that all was well and that the ramp for the Guba would be ready on our arrival.

We landed at Pearl Harbor an hour after daylight—18 hours and 3 minutes

(Continued on page 74)



Captain Richard Archbold, Research Associate American Museum of Natural History, standing on the bow of the Guba, a Consolidated Model 28 flying boat, which served as a flying laboratory in Netherlands New Guinea.

THERE'S DEPENDABILITY

IN

HAZARD "KORODLESS" CONTROL EQUIPMENT



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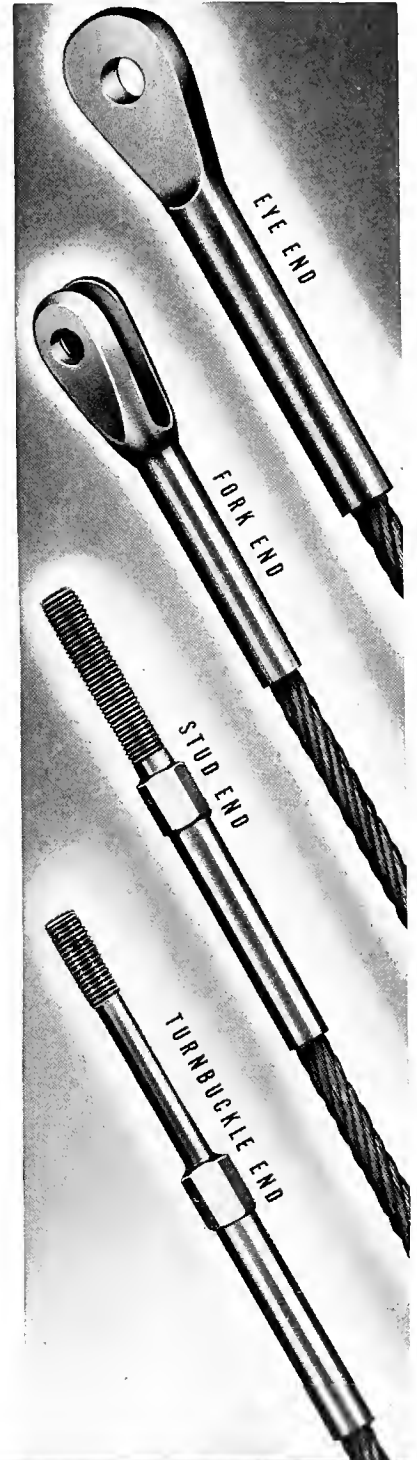
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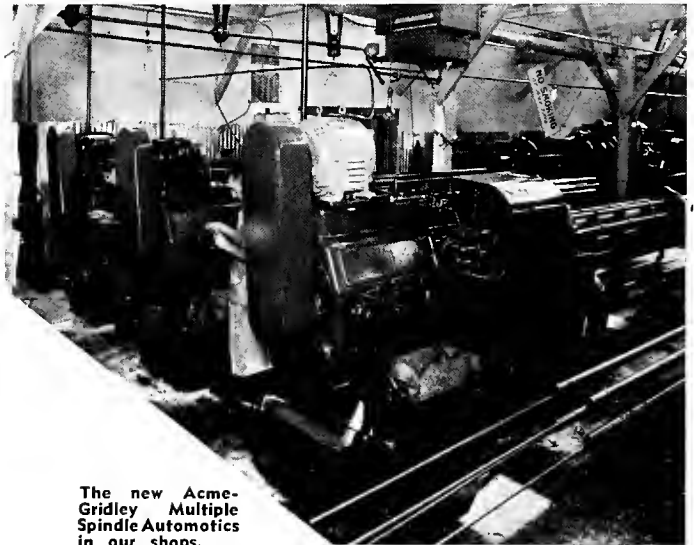


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A WOMAN'S VIEWS ON AVIATION

By JACQUELINE COCHRAN

I am pleased to accept the invitation of *Consolidated Aircraft Company* to say a few words in the Christmas issue of "*Consolidator*."

The old Buffalo plant of *Consolidated Aircraft* stands out in my memory. Back in the spring of 1934, I decided to enter the air race from London, England, to Melbourne, Australia. After checking the field of best possible ships for the race, I decided that the one then being manufactured for the Army by *Consolidated* was the best. I think it was called the PB2A. It had a turbo-supercharger, and for that period gave an outstanding performance of speed when flying above 18,000 feet in altitude.

I failed in my attempt to get that ship and have often thought this caused me to lose the race. For I had made up my mind that a turbo-supercharged engine was the thing and not being able to get the Army one, I went about getting one of my own. I didn't know as much about aeronautical matters then as I do now, or I wouldn't have tried it. Everything new is experimental, and everything experimental must be tested. A 12,000 mile race is no place to test out the new. The special equipment had to be discarded in the end, and with it the ship also, for the rules prevented substitutions of power plant or equipment after the making of the entry. At the last moment, rather than stay out, I got hold of a new and untested "GeeBee" that was covered by another entry. In it, I led the field as far as Bucharest, Roumania, but my first stop was also my last, for the flap mechanism wouldn't work. Without flaps, it seemed that I needed a field as long as from here to nowhere to land, and the fields between Roumania and Australia were considerably shorter. Captain Serabia of the Mexican Army met his death in that same plane in Washington last year

when taking off on an attempted record flight to Mexico City.

Eight years of flying have taught me more and more to respect planes and the manufacturers who make them. The old P20 was superfine in its day, but that was six years ago, and six years is a long time in aviation. It could give bursts of speed, as I recollect, that were around 270 miles an hour. Last April, in a Republic P35 I traveled for nearly 4 hours without benefit of wind at an average speed of 332 miles an hour. It gave me pleasure to take the 2,000 kilometer international speed record away from the Germans by doing this. But there are army planes already in the air that will do better probably even at this distance, and next year will bring with it more new developments and more speed.

Back in 1932, I spent some time training in San Diego, and many a time I have flown over the site of the present *Consolidated* plant. I watched a whole formation of pilots fall in through a fog one day on the San Diego field.

The last comment causes me to think about the great number of aids that have been given to pilots during the eight year period I have been flying. We liked to boast then about flying being safe. Now we know it is quite true as attested by the records of the airlines and the training program of the Civil Aeronautics authorities.

It has been suggested that I might say a little about women's place in aviation generally and in national defense in particular.

In commercial aviation, women as yet cannot expect to earn their living. Apart from national defense, I believe they must fly pretty much for pleasure or not at all. Very few find ways and means to get an

(Continued on page 98)



Records Established by Jacqueline Cochran

- July 26, 1937—Women's national 1000 kilometer record, open class, 200.71 MPH, Los Angeles.
- July 28, 1937—Women's national 100 kilometer record, open class, 203 MPH, Los Angeles.
- Sept. 3, 1937—First place, women's division, Bendix Transcontinental Trophy Race.
- Sept. 26, 1937—Women's international three kilometer record, open class, 293.06 MPH, Detroit.
- Dec. 7, 1937—New York-Miami, 4 hours, 12 minutes, 300 MPH.
- Dec. 9, 1937—Women's national 100 kilometer record, open class, 252.875 MPH, Miami.
- Dec. 13, 1937—Women's national 100 kilometer record, open class, 255.973 MPH, Miami.
- Sept. 3, 1938—First place, Bendix Transcontinental Trophy Race, Los Angeles-New York via Cleveland, 10 hours, 7 minutes, 10 seconds, 242.088 MPH. Women's transcontinental record.
- March 24, 1939—Women's national altitude record, 30,050 feet, Palm Springs, Calif.
- April 8, 1939—Women's international 100 kilometer record for planes between 122-244 cu. inch displacement, 106 MPH, New York.
- July 11, 1939—Women's national 100 kilometer record for planes between 397-550 cu. inch displacement, 163 MPH, New York.
- Aug. 3, 1939—First blind landing by woman, Pittsburgh.
- Aug. 15, 1939—Women's national 100 kilometer record for planes between 397-550 cu. inch displacement, 173.097 MPH, New York.
- Sept. 15, 1939—National and women's international 1000 kilometer record, open class, 306 MPH, Los Angeles.
- Sept. 28, 1939—Women's international 100 kilometer record, open class, 289 MPH, Los Angeles.
- April 6, 1940—International 2000 kilometer record, open class, 332 MPH, Los Angeles.
- April 20, 1940—National 100 kilometer record, open class, 293 MPH, Albuquerque, N. M.



At left: Manufactured for the Army—the PB2A . . . First contract completed in the San Diego plant.



INSTINCTIVE FLYING ABILITY, and to make use of any instruments was "likely to make MECHANICAL PILOTS" out of us, and that would be bad. We also flew SE-5 single seater pursuit with 180 H. P. Hisso, and MB3A pursuit with 300 H. P. Hisso, and Martin NBS-1 Bombers with two Liberty engines. After graduating from the flying schools, I flew a Boeing 40A mailplane owned by Pratt & Whitney Aircraft Company and used to test Wasp and Hornet engines. This was my first experience with AIR COOLED engines. On the air-mail in 1928 we used Pitcairn Mailwings and Fairchild FC-2 cabin planes both powered with Wright J-5 Whirlwind air cooled engines. With *Consolidated Aircraft* the list includes

the plane maneuvered and if it was easy to make nice landings without bouncing too high.

In the second list are found planes equipped with super-charged engines, controllable pitch propellers, closed cabins, and modern instruments. The Air Corps PB2A had a PRESTONE cooled Curtiss Conqueror 12 cylinder engine, electric propeller, turbo-supercharger, manifold pressure gauge, sensitive altimeter, etc. This plane also had retractable landing gear and wing flaps. The problem in testing this plane was that the pilot could not accurately climb the plane at full power and constant speed and at the same time read and write down all the instrument readings. If he was reading

TEST FLYING THEN...

By WILLIAM B. WHEATLEY, Chief Test Pilot

I JUST got out my *Log Book*, and for the fun of it jotted down two lists, one giving the types of airplanes and engines flown for the first eight years, and the other the types for the last eight years.

In the first list I find the planes I flew while an Army Flying Cadet which were ALL water cooled, open cockpit airplanes. The old Curtiss JN4H Hisso-Jenny was the first. We did not wear parachutes in Jennies in 1925 although about a year later the Army installed "parachute type" seats so that 'chutes could be worn. It was while I was still in the Primary Flying School at Brooks Field that I saw the first *Consolidated* PT-1 trainer, which also was powered with a Hisso engine, and it had "parachute seats." The class following mine wore parachutes and was trained half on Jennies and half on PT's. At the Advanced Flying School at Kelly Field we flew DH-4B's powered with Liberty 400 H. P. 12-cylinder engines. This was the first plane I had flown that sported an AIR-SPEED INDICATOR, but we were cautioned not to pay any attention to this instrument as we were supposed to have

FLEET trainers with Kinner or Warner engines, FLEETSTER cabin planes with Hornet or Cyclone engines and COM-MODORE flying-boats using two Hornets.

In the above list are planes using "sea-level" engines, fixed-pitched propellers, and a minimum of instruments. Testing these planes consisted mainly in trying them out to see "how they flew." The engine would be run at full throttle with the plane choked on the ground, and the ground r.p.m. would be determined. Next the plane would be flown full throttle at about 200 feet above the ground, and the flight r.p.m. would be determined. If the engine speed was not up to or slightly in excess of the rated r.p.m. the propeller would be changed for one of less pitch, and changes in propellers would be continued until the flight tests show that the flight r.p.m. were correct. The air speed would be determined by timing the airplane up-wind and down-wind over a known ground distance while flying full throttle close to the ground. The all important consideration, however, was how

instruments, the plane would either level off or climb too steeply, and if he concentrated on his flying, he missed the instrument readings. The instruments were not grouped so that they could be easily photographed, and the plane would climb so fast that if the time and airspeed were read at 6000 feet, by the time the pilot got around to reading the manifold pressure the plane would be at 8000 feet.

With the PBY series (PBY-1, PBY-2, PBY-3, PBY-4, PBY-5) a co-pilot and a flight engineer were added to the test crew, and while one pilot flew the plane, the other would write down flight instrument readings, and the flight engineer would write down engine instrument readings. This made it much more satisfactory for obtaining accurate data than on previous craft.

Before the flight, a flight plan is prepared and this is studied and discussed by the flight crew. The plane is inspected for flight condition by an inspector with long experience in aircraft operation and maintenance to make sure that insofar as is possible to determine, nothing has been left out in the way of items of service and equipment which might prevent the satisfactory completion of the proposed tests in flight. Such inspection includes checking fuel, oil, ballast, instruments, parachutes, life vests, oxygen equipment, radio equipment, interphones, photo-



Proof that "Bill" Wheatley has flown over the North Pole . . . 1928 Health Seal Campaign . . . Rochester, N. Y.

graphic equipment, checking flight controls, etc.

With the 4-engine U. S. Navy Patrol Bomber, the PB2Y-2, and with the 4-engine U. S. Air Corps Bomber, the B-24 a still larger test crew is carried. The engines on these planes are supercharged so that full power may be maintained to very high altitudes. At these altitudes, the crew wears B-L-B Oxygen Masks and breathe air enriched with additional oxygen.

Any flights involving fast rates of climb or operation at high altitude make it necessary for the pilots and crew to breathe through special face masks connected to oxygen apparatus regulating the flow of oxygen to the amount found

engines during the speed run (obtained by TORQUEMETER and other engine instruments) it is possible to calculate the speed under standard conditions at RATED power, or under any other conditions of barometric pressure, temperature and power desired. To accurately obtain simultaneous instrument readings we are now making use of photography. Studies of take-offs and landings are also made by use of movie camera.

After the airplane is inspected and weighed, serviced with fuel and oil, and ballasted with the desired load, the testing is started. Ground tests of the engines, propellers, and all other equipment are run first. Next comes a shake-down flight to make sure that everything works

...AND NOW

necessary to be added to the air at the altitude attained. The type of equipment used on experimental flights by *Consolidated* is the B-L-B Oxygen Inhalation apparatus recently developed at Mayo Clinic by Doctors Boothby, Lovelace, and Bulbulian. This apparatus, because of its efficiency, permits longer and higher flights without carrying larger or heavier tanks of oxygen. Nevertheless it has been found that even with the best apparatus yet devised, flights at the very low pressures found above 35,000 feet cannot safely be made without "supercharging" the cabin or else having the crew wear suits with head gear like an under-sea diver so that pressure is maintained on each individual sufficient to keep him alive and reasonably efficient.

Communication between pilots and crew is at all times possible by use of a telephone system usually referred to as the interphone. Two-way radio communication with the ground is also maintained.

To determine speeds at high altitudes, the airspeed instruments are first calibrated near the ground by timing the plane at various indicated speeds over a known ground distance. Next the plane is flown at altitude until "stabilized" (continuing for several minutes with no change in altitude, airspeed or power instrument readings). This airspeed reading, corrected for outside air temperature, barometric pressure at the altitude tested, and for instrument error gives the true airspeed at that altitude. With a knowledge of the power output of the

okay in the air. The engines are tested in flight for power output, cooling, smoothness of operation, fuel consumption, etc. The propellers are tested to make sure they govern engine speed throughout the proper range. Changes are made in control surface areas and balances if found necessary, to give proper effectiveness and ease of control. Performance tests include air speed instrument calibration, determination of ceiling and rate of climb, speed at various altitudes with different loads and amounts of power, take-off distance and landing speed, stability, controllability, ground or water handling qualities, and operation of special equipment.

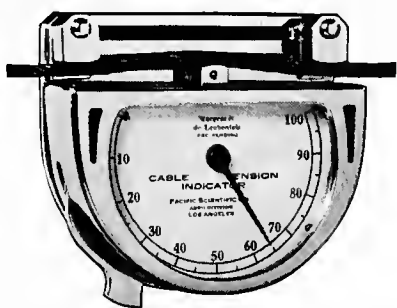
Flight tests of a miscellaneous nature include dives, pull-outs, spins, tests for buffeting, flutter, or vibration study, tests of equipment, ground or water handling characteristics, etc.

Performance data are no better than the accuracy of the instrument calibrations, accuracy of the pilot in holding the flight path stabilized under the required conditions, and accuracy of the flight observers in reading the instruments or photographs of the instrument group.

The present degree of accuracy in testing would not be possible without teamwork on the part of the test crews, without sensitive instruments to measure most all of the variable quantities that must be known to get an ANSWER in test flying.

The Essence of Knowledge is, having it, to apply it; not having it, to confess your ignorance.

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By CAPT. S. J. ZEIGLER, U.S.N.

DURING the World War, I noticed hanging prominently in each department of a newly formed aircraft factory, a sign which read "A Concealed Mistake May Cause a Brave Man to Lose His Life." In answer to my question as to the necessity for all these signs, the manager of the factory told me that almost his entire working force were men and women new to the aircraft industry; that they had been recruited from structural steel workers, automobile plants, phonograph factories, soda water counters, etc.;—one girl rigger had just left a job making wire hat frames in a millinery shop; that these workers were not familiar with the very narrow strength margins, or factors of safety, used in airplanes,



YOUR BROTHER'S KEEPER

and when they joined his organization were not aware of the great responsibility resting on aircraft mechanics, nor of the disastrous results sure to follow faulty workmanship. The constant reminder of the signs was necessary, in his opinion, to inculcate the standards of aircraft construction, in which the best is not good enough.

Years later I became manager of an aircraft factory. A visitor noticed on my desk a fractured wing hinge fitting; in answer to his inquiry I explained that the fitting had broken under static test, revealing that a lightening hole had been drilled too deep, plugged, and redrilled to correspond with the drawing, in such a manner that the fatal weakening of the fitting would not have been discovered in time had it not been subjected to a proof load. I further explained that this was the first and only instance of discovery of a concealed mistake at this plant, and that I had just finished the painful duty of discharging the guilty man.

Shortly thereafter out in a shop, this same visitor became interested in a pile of rejected pontoon struts. Inquiry revealed that the driller had applied his jig wrong, had not discovered his error until all the struts had been drilled, had reported the matter himself to his foreman, and suggested a method of salvage. It was explained to the visitor that this workman would not be disciplined since he had not tried to conceal his error, and that although the struts could be salvaged, they would not look right to the pilots of the airplanes, and that rather than jeopardize their confidence, the en-

CAPTAIN S. J. Zeigler, USN, the naval inspector at *Consolidated*, graduated from the U. S. Naval Academy at Annapolis in 1912. After an ensign's cruise in the U.S.S. Minnesota of the Atlantic Fleet, he was detailed to post-graduate technical study at Boston, Mass., and has followed an engineering and industrial career ever since.

He took the special navy course in warship design at the Massachusetts Institute of Technology, combined with Doctor J. C. Hunsaker's newly inaugurated classes in aeronautical engineering. At the same time, he studied at Harvard University, the Graduate School of Business Administration's course in Factory Management and Industrial Accounting.

During the World War, Captain Zeigler was in charge of ship repairs at Brest, France, under Vice-Admiral Henry B. Wilson, and after the war continued in ship work at the Norfolk Navy Yard, where two of his jobs were equipping the U.S.S. Aroostook as a tender for Captain A. C. Read's Trans-Atlantic flight in

tire lot of struts was being rejected and replaced. An aviator's confidence in his material is the priceless ingredient indispensable to success in military flying.

Recently Major Reuben H. Fleet told me that of all the *Consolidated* aircraft ever built, and flown the wide world over, not a single one had ever experienced a structural failure. This is indeed an enviable record of which *Consolidated's* President and every employee may well be proud.

But today the *Consolidated Aircraft*

the NC-4, and the conversion of the old collier, Langley, to the Navy's first aircraft carrier.

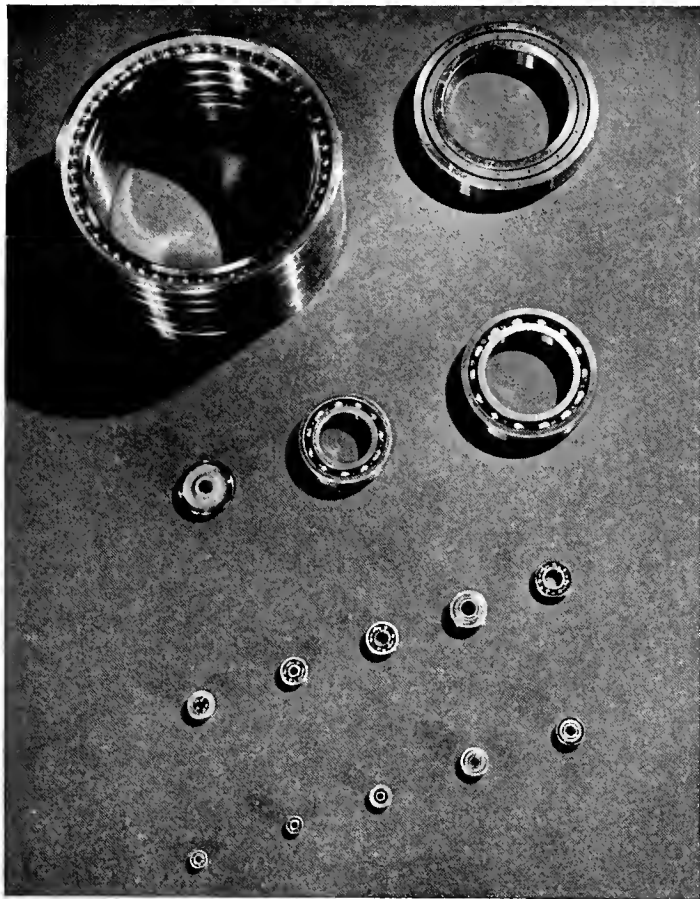
Captain Zeigler joined the Bureau of Aeronautics with Admiral W. A. Moffett and Captain E. S. Land, when that Bureau was first formed, and has been in the aeronautical organization of the navy ever since. His twenty years' continuous aircraft experience has included, in addition to two tours in the Bureau at Washington, successive details as Production Superintendent, as Chief Engineer, and as Manager of the Naval Aircraft Factory at Philadelphia, Pa.

Just prior to coming to *Consolidated* as inspector, Captain Zeigler was with the Aircraft Battle Force, of the U. S. Fleet, as senior aeronautical engineer, first on the staff of Vice-Admiral E. J. King and then on the staff of Vice-Admiral C. A. Blakely.

Captain Zeigler at present is the Bureau of Aeronautics' General Inspector of Naval Aircraft for the entire Western District, with additional duty as the Inspector of Naval Aircraft at San Diego.

Corporation is weekly employing hundreds of new men. Many of them have never worked on aircraft before, are new to the standards of the industry, are unaware of *Consolidated's* unblemished record, and do not know the heavy responsibilities they bear.

Therefore, let me say to you new men, and remind you old-timers,—Guard your workmanship as your honor. A concealed mistake may cause your firm to lose its hard-earned reputation, and brave men to lose their lives.



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more than Fifty years' experience plus the skill
of the finest type of American Craftsmen.

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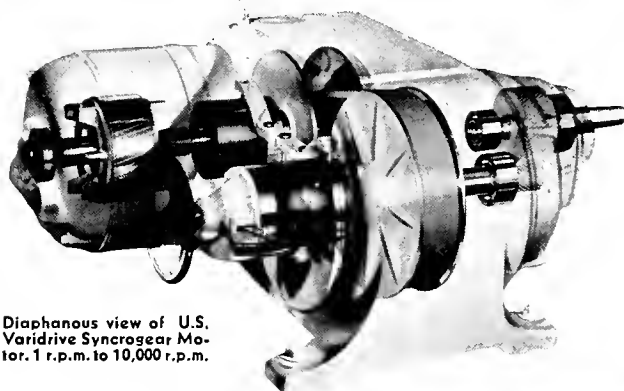
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To right is illustrated the U. S. Syncrogear Motor. Note the substantial pyramidal design, insuring proper rigidity for the hardened gear-train.



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HOWARD GOLEM

Assistant Material Supervisor and Traffic Manager

ity of the factory supply items are handled in this manner while the greater percentage of production materials and parts for the airplanes are purchased on bids.

Unless the item to procure is of a highly specialized nature with a restricted source, letters of inquiry containing quantities, specifications, scheduled requirements and blueprints when appropriate are sent to three and sometimes four sources. When quotations are received, they are carefully analyzed and purchase order contracts are awarded to the successful bidder. Needless to say, price alone does not determine the successful bidder as other factors such as quality, delivery, dependability and past performance are considered.

While principles and ethics of buying is a broad subject in itself, *Consolidated* attempts to treat all vendors with fairness and expects the same in return. It is felt

PURCHASING...

By Howard Golem in Collaboration with Chas. T. Leigh

TO BUILD airplanes it is necessary that there be a purchasing organization to buy many things—machinery, tools, supplies, raw materials, parts—little things like toothpicks and big items like hydraulic presses. Some are seemingly insignificant, however, a close scrutiny proves them quite vital indeed.

Policies of buying vary to suit the character of the industry or agency. Some companies buy primarily on market conditions, or on a speculative basis; however, *Consolidated Aircraft's* policy might better be defined as—purchase by contract for delivery against scheduled production. While certain standard items are ordered based on minimum and maximum perpetual inventory control records, the major portion of materials and parts are requisitioned for purchase based on releases prepared by the Engineering Department for specified contracts and models of airplanes. This engineering release of types and quantities per ship is, at the beginning of a contract, in the nature of a pre-release which is estimated as closely as possible to permit the speedy purchase of basic items for production.

As the detailed design progresses each part is checked and necessary revisions are made to increase, decrease or cancel the pre-released materials which have been ordered. While such changes are sometimes costly and scrap is grudgingly accumulated, no better method appears available which would not delay starting production.

Standardization, larger volume, and "freezing the design" will probably be the answer to better economy in this respect.

Engineering releases are segregated and accumulated by the material order group, where requisitions to purchase are prepared for the buyers. This group, since their function is vital to the production department, as well as purchasing, coordinate with the scheduling department as well as engineering and the shop. The quantity to buy is based upon inventory, contingency for spoilage, number of airplanes and spare parts to build and purchasing policy. Needless to say, accuracy, knowledge of material specifications and uses of the item are quite important to assure sufficient quantity so that production is not hampered with resultant excessive cost.

Because of the multitude of items to buy, most of which require a considerable knowledge of source, quality, service and price, it has proved the best policy to assign certain classes of materials or parts to each of several buyers. The buyers operate under the guidance of the material supervisor and are aided in the preparation of necessary detail by assistants who are learning the mechanics and principles of purchasing. Orders are sometimes placed on catalogue information and price lists published by reputable firms. This policy is particularly true where items are of a standard nature and repetition of the requirement frequently occurs. The major-

that this has developed in the vendors' confidence in our integrity which has been reflected in better prices, assured quality and satisfactory delivery to meet the urgent requirement of advanced production schedules.

Much of the buyers' time is devoted to interviewing representatives of the many vendors and prospective suppliers; and while the time for each necessarily must be limited to enable all to have a fair chance to present their product an alert buyer can obtain from these contacts much beneficial knowledge which would otherwise require hours of research. In this respect it is our policy to accept reputable vendors' statements of the value of their products without subjecting innumerable items to our own tests. However, items in a development stage, particularly those of a rather complex nature, must be tested and proven. In this connection the buyers contact the group leaders of the Engineering Department through the Standards Engineer who coordinates outside technical problems with the shop as well as with engineering departments.

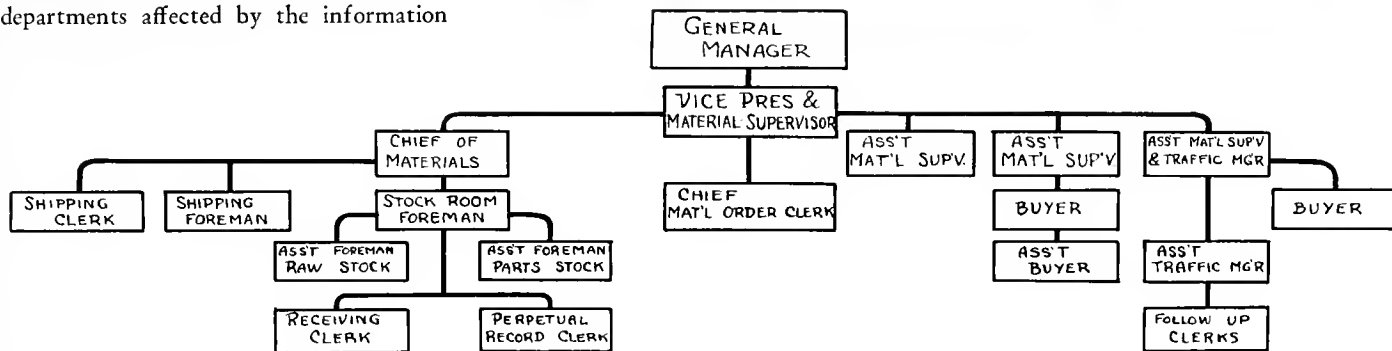
Development of sources of supply is of utmost importance in this era of rapid expansion of aircraft production and the burden of procurement of sub-contract items rests heavily upon the buyer. Not only must he have a working knowledge of the many laws such as the Vinson-Trammel Act, Robinson-Patman Bill,

Walsh-Healey Act, Fair Labor Standards Act and many others, but he must, too, be familiar with financial procedure, contractual requirements determining the responsibilities of the parties, and further he must educate the sub-contractor in the processes, practice, and procedure of manufacturing aircraft parts. Inability to purchase and obtain rapid delivery of necessary machinery and equipment together with time necessary to erect buildings has thrust upon the purchasing personnel a problem of parts procurement which a short time ago was of minor consequence since the industry was, generally speaking, self-contained in this respect.

As many items of similar nature as possible are incorporated on the same purchase order, the original and acknowledgment copy of which are mailed to the vendor. Copies are circulated to various departments affected by the information



CHAS. T. LEIGH
Vice-President and Material Supervisor



thereon and receipt of the materials purchased. The order specifies quantities, descriptive data, applicable specification (Army, Navy or Commercial) schedules of delivery, prices, shipping instructions, point of inspection and other contractual information.

A copy of the purchase order is sent to the perpetual inventory record group and the pertinent information, such as order number, quantity, description of part, price, etc., is recorded. This material record is essentially the working point for various departments functioning in connection with stock, purchasing, cost, material requirement and production. Requisitions prepared by the planning requisition clerks for the withdrawal of material from the stockroom are recorded on these records, and it is always possible to determine the amount of parts or material available for current contracts or as surplus. A physical check is constantly being made of the actual inventory, so that it is certain that the records are accurate. Requisitions for stock are priced from this record and the material cost of a contract is determined essentially from this information.

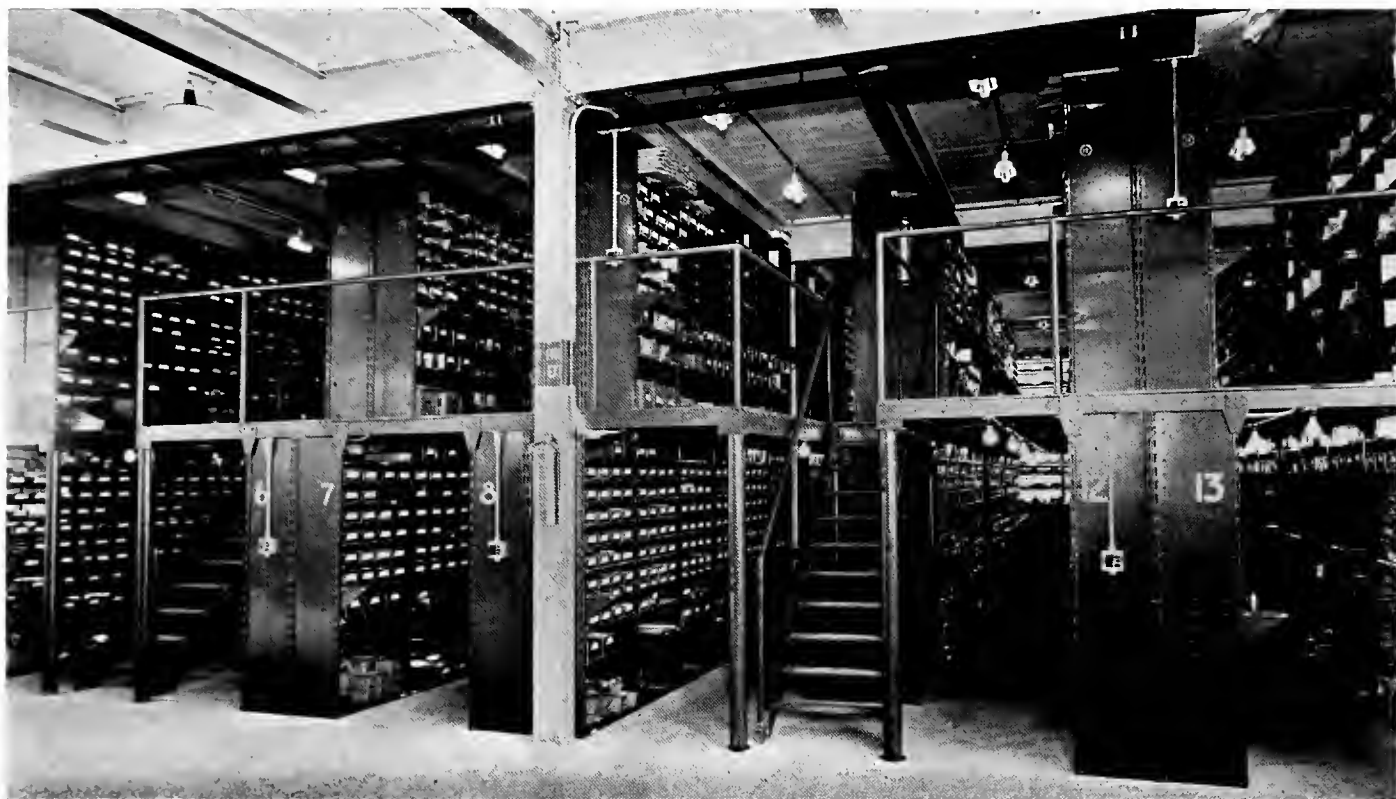
A copy of the purchase order is also forwarded to the receiving department, the accounting department and a copy is filed by the receiving inspection department. Upon receipt of the materials, the receiving clerk checks the item against the order and receiving reports are prepared accordingly. Copies of these receiving reports are sent to receiving inspection where the parts are checked to determine that they are in accordance with the specifications and dimensions under which they were purchased. Copy of the receiving report is immediately relayed to the follow-up department for their information and another copy is filed with the accounting department so that settlement can be made on vendors' invoices which also are checked by purchasing.

After parts and materials are accepted by inspection, they are sent to their respective stockroom. Raw materials are stored in one building while standard parts and purchased finished items are stored in another stockroom. Although many withdrawals by departments are made from the main stockrooms, a system of department feeder stockrooms has been established to expedite service. Customer

furnished material and equipment designated by the Army as GFE and by the Navy as GFM is stored in a separate locked room. All records accounting for this equipment are handled independently of the company purchased stock.

Copies of all purchase orders sent to the follow-up department of purchasing serve to actuate a tickler filing system to insure the delivery of the many items required in accordance with the schedule necessary to meet production requirements. The follow-up department handles many of the traffic matters such as routing freight, checking freight bills, freight allowances, freight rates and many other transportation matters. It has proved advantageous to have traffic matters closely coordinated with the follow-up system of the purchasing department since they both are working toward a common end, that is, delivery of the parts or material in a safe, logical, economical and expeditious manner consistent with the requirements of production. This coordination accomplishes a maximum amount of detail necessary with a very minimum of red tape. Many of the traffic matters pertain-

(Continued on page 92)



"In the Finished Parts Stockroom of Consolidated Aircraft Corporation, it was absolutely necessary that space be saved. Lyon Metal Products, Incorporated, were called into the picture and their engineers solved the problem with this mezzanine installation of Lyon Steel Shelving. Lyon Metal Products, Incorporated, have an office and plant in Los Angeles, and their main plant and general headquarters are located at Aurora, Illinois. In addition to steel shelving, they manufacture steel tool room equipment, shop boxes, shop benches, steel lockers, cabinets and many other kindred products." *Adv.*

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Official Photograph U. S. Navy

gram, since no advantage would attend the availability of these aircraft at an earlier date because of other features of the naval expansion which must be coordinated with aircraft procurement.

The absorption of these airplanes by the Naval Aeronautic Organization will require an accelerated and greatly augmented flight training program which will build up pilot strength to an ultimate total of 18,500. This program calls for the use of further expanded facilities at the Naval Air Station, Pensacola, Florida; the development of training facilities at Jacksonville and Miami, Florida; and the establishment of a new air station in the vicinity of Corpus Christi, Texas. This last-named activity will represent a duplication of the Pensacola facilities. In addition, activities at existing Naval Reserve Aviation Bases throughout the country will be increased, and three other bases of the same character—at New Orleans, Dallas, and Atlanta—will be acquired to handle the indoctrination and preliminary training of the large number of candidates before they are actually admitted

plus those authorized in H.R. 10100, bring the Navy's strength in this category to approximately twenty. Those in commission at present are the Saratoga, Lexington, Ranger, Yorktown, Enterprise, and Wasp. Those under construction are the Hornet, Essex, Bonne Homme Richard, Intrepid, and Kearsarge.

In view of the fact that the aircraft units attached to the carriers provide the mobile means for the projection of the Navy's greatest concentrated offensive, every effort possible will be made to rush the newly authorized ships to completion at the earliest possible date.

An equally important and equally urgent feature of the naval aviation expansion program is the early increase in the number of patrol type airplanes for the Fleet and for local naval defense purposes. The bases for which provision is being made are essential for the operation of this type of plane, and the aircraft tenders now authorized will provide for the mobility of the planes when they are not in a shore-based status.

THE NAVAL AVIATION

By Rear Admiral J. H. Towers, U.S.N.

THE Naval Aviation Expansion Act (H.R. 9848) of June 15, 1940, provided authority for the procurement by the Navy of a sufficient number of airplanes to bring the total on hand and available for service use to 10,000. Shortly thereafter, on July 19, 1940, H.R. 10,100 (popularly called "the 70% bill") was enacted, providing in part that the number of useful naval airplanes can be increased from 10,000 to a total of 15,000. The bill also provides that this total may be exceeded if in the judgment of the President this number is found to be insufficient to meet the needs of the national defense.

Funds are being made available in regular, supplemental, and emergency appropriations to finance the procurement of the first substantial increment of the aircraft expansion program. It is contemplated that orders for approximately 7,000 airplanes, representing every type used by the Navy, will be placed during the fiscal year which began July 1, 1940. Although deliveries in many cases cannot be expected before the fiscal year 1942, this delay will in no way weaken the pro-

to the naval aviation training course.

As the airplane and pilot strengths are increased, the development of continental and outlying bases for naval aviation operations must be pressed in order to bring this essential feature of the expansion in accord with the program as a whole. Accordingly, the funds authorized by H.R. 9848 and appropriated in the First Supplemental National Defense Appropriation Act of 1941 will be applied principally to development and expansion of facilities at the following places: Canton Island; Norfolk, Va.; Coco Solo, C. Z.; Kodiak, Alaska; Hawaiian Island area; Charlotte Amalie, V. I.; San Juan, P. R.; Seattle, Wash.; Johnson Island; Quantico, Va.; Quonsett Point, R. I.; Midway Island; Wake Island, Unalaska, Alaska; Tongue Point, Ore.; Alameda, Calif.

The availability of the vessels carrying aircraft which were included in the Naval Expansion Bill (H.R. 8026) will determine the commissioning dates of the squadrons to be assigned to those units. In this same bill was also authorization for three aircraft carriers. These, added to those on hand and under construction,

It is particularly in the field of the flying boat that the *Consolidated Aircraft Corporation* has made contributions of great value to the national defense. The non-stop, long-distance flights of this type of plane carried out by the Navy have become almost synonymous in recent years with the designation "PBY." The naval specifications for patrol planes are more encompassing each year. This is, however, in line with the patrol plane development which has been a continuing project since the earliest days of naval aviation. The efforts of the Navy and those of the aviation manufacturers have lifted the patrol planes from the purely defensive category and placed them high on the list of offensive weapons. Today, they are capable of long-range scouting from our shores and insular possessions; their existence relieves us from building vast numbers of surface vessels for this purpose. They can be used most effectively also for bombing or torpedoing hostile vessels. Their advent has had an enormous effect on our naval strategy and tactics. Their long

(Continued on Next Page)



Consolidated Model 28 twin engine flying boats (U. S. Navy PBVs) on the final assembly line.

range and high speed enable them to cover vast areas in short spaces of time. They have, in effect, greatly reduced the sea areas in which enemy surface vessels can operate without fear of detection and destruction by shore-based aircraft. They can operate not only from established shore bases, but also from any fairly sheltered waters where tenders with fuel can base.

demonstrated. Squadrons fly from West Coast to Honolulu as a matter of routine; and recently, in connection with the neutrality patrol, squadron transfers from Pearl Harbor to Manila have been accomplished without incident through some very bad weather. The value of the flying boat to the Navy has, over a period of years, been conclusively demonstrated.

properly coordinated, it is obvious that the production capacity of the United States aircraft industry must be carefully evaluated, priority in deliveries established, and cognizance taken of the interests of other branches of the Government which might conflict with Navy procurement. It is hoped that the intensive studies now in progress will result in a satisfactory

EXPANSION PROGRAM

They can shift quickly from one area of operations to another. If on our East Coast the sudden need for additional patrol plane squadrons became apparent, those on the West Coast could be flown straight overland without stop, and in a matter of not many hours. The practicability of this transfer has already been

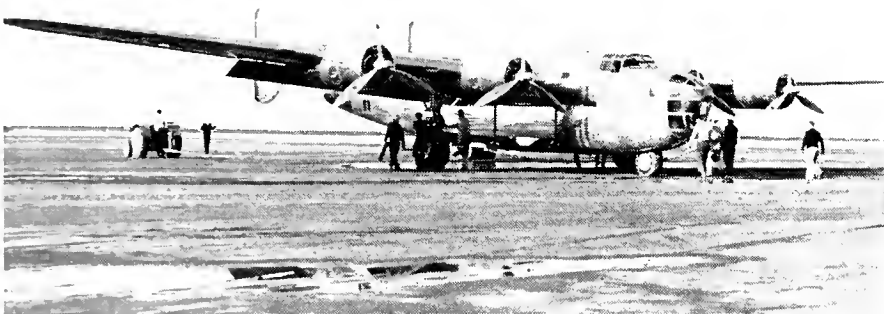
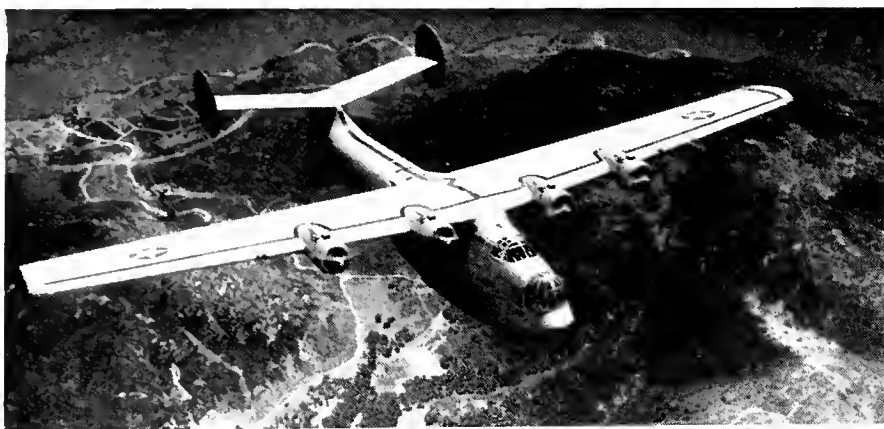
The procurement, as rapidly as possible, of the large number of airplanes required, and the recruitment and training of the personnel necessary to support the expanded aviation program, are the most difficult problems which confront the Navy at the present time. Before the program as a whole can be considered as

reconciliation of all differences and formulation of a general coordinating plan which will insure the expeditious attainment of the desired objective, which is the fulfillment of the naval aircraft program.



Another view of a corner of the Final Assembly building showing a group of Model 28s nearing completion for the U. S. Navy.





Top: Consolidated Model 29 four engine flying boat, the U. S. Navy PB2Y.

Second: Our Model 32 four engine land bomber, the U. S. Army's B-24.

Third: The familiar Consolidated Model 28, which the Navy designates as the PB1Y.

Bottom: Consolidated Twin-engine Model 31; combining high speed, range and load carrying ability.

THE PB1Y design is so well known that further discussion here would be of little value. It may prove of interest, however, to point out that from the standpoint of stepping into the unknown on a new type—the PB1Y or XP3Y-1 as the prototype was called, made an all time high in the annals of flying boat development. Retractable floats, integral fuel tanks, stressed skin wing construction, two-row radial power plant, constant speed propellers and internally braced empennage construction were successfully applied to a flying boat for the first time in this model. The XP3Y-1, flown by Comdr.

CURRENT

McGinnis of the U. S. Navy, broke the world's distance record for seaplanes in 1935 and it is because the design was so far ahead of its time that *Consolidated* is still in volume production on the PB1Y's.

PB2Y-2.

Next in order of chronological development is the four-motored PB2Y-2. This design is essentially a considerably enlarged refinement of the PB1Y, utilizing a full cantilevered wing of sufficient chord and depth to house the bomb load therein. The initial flight of this prototype, the XPB2Y-1, was made in December, 1937, and the next nine months were spent in curing hydrodynamic and aerodynamic difficulties originating from the increased size and speed. During this period we developed and checked by full scale test, our dynamic model method for predicting hydrodynamic stability (lack of porpoising) and perfected it to the point where we believe we can predict accurately the range of C. G. location within which the flying boat hull will be stable on the water and beyond which it will porpoise. As a result of this research the XPB2Y-1 hull was modified and the prototype has subsequently gone through our own trials, those of the Navy and many severe overload tests without further recurrence of this trouble. Aerodynamically, with increase in size of control surfaces and speed, the problem of obtaining reasonable control forces with simple aerodynamic balance and without the use of separate power boost was a particularly difficult one. This was solved by the use of our type frise balances on all the surfaces and the dual fin and rudder combination. Pilots who have flown the XPB2Y-1 are surprised to find that the controls are, if anything, lighter and smoother than the smaller PB1Y and the stability and handling

qualities both in the air and on the water leave little to be desired. The new PB2Y-2's shortly to be delivered have reversible pitch Curtiss propellers which will enable them to be brought up to a dock or mooring with the facility of a motor launch. This attribute is important when a large number of flying boats are being operated from congested areas since it tends to prevent collisions and damage.

The Engineering Department has made studies of commercial adaptations of the PB2Y-2 and versions incorporating luxurious interior furnishings are entirely suitable for trans-Atlantic passenger trans-



DESIGNS IN PRODUCTION

By I. M. LADDON, Chief Engineer

port. The payload and range are such that the intermediate stops, which present day equipment makes, can be skipped with saving in time and increase in regularity of service.

MODEL 31

Next in order of development is our Model 31, otherwise known as the "Pregnant Guppy" or called more politely by Admiral Cook the "Star Fish." This airplane is proof that a shape need be streamlined in one view only to slip through the air without too much drag. By long odds the queerest looking of the *Consolidated* family, it certainly is the best performing of our flying boats and it does make into a good-looking landplane, witness the B-24. At Major Fleet's request we relinquished our retractable wing tip floats so that the wing would be suitable for landplane as well as flying boat use. In our desire for maximum range and high cruising speed we reached new limits (for 1939) in aspect ratio and wing loading 11.5 and 48 lb./sq. ft. respectively. The airfoil used in the *Consolidated*-Davis, selected because of greater efficiency at cruising speeds and the *Consolidated*-Fowler flap is employed to reduce take-off and landing speeds. The airplane with flap extended flies and handles as well as with same retracted so that low visibility approaches can be made safely at slow flying speed despite the relatively high wing loading. The Wright 3350 (Duplex) 2000 HP engine and the 16' diameter Hamilton-Standard propeller were flown for the first time in Model 31. The integral fuel tanks have capacity in excess of 5500 gallons and if we had the time and could find some peaceful far away spot to fly to, the Model 31 could readily break the present world's distance record. Regarding a commercial version of Model

31, the hull is deep enough for two full decks, each with over 6 ft. of head room and therefore space is available for over 50 passenger seats or approximately twenty berths. While Model 31 with two engines is bucking the prevailing trend toward four-motored equipment for trans-oceanic commercial transport, it is probable that the splendid record made by bi-motored land transport will eventually reverse this trend. Of course, Model 31 could be produced with four smaller power plants instead of the present Wright Duplex engines but this would be at some expense in payload and efficiency unless experience proves that still higher wing loading is practicable. The present Model 31 has a fully retractable tricycle beaching gear which can be carried with the airplane at no increased drag or removed when maximum load missions are to be performed. The design of the beaching gear is such that the transition to an amphibian would not involve serious modification of the structure.

PBY-5A.

The *Consolidated* XPBY-5A, our amphibian, made its first flights November 22, 1939. We had not designed landing gears since the Buffalo days and the task of providing a fully retractable tricycle type for a 14-ton flying boat with its necessarily high center of gravity was not an easy one. It was also our first whole-hearted venture into the field of hydraulic controls and as a matter of fact we had more difficulty with these than with the landing gear. Fortunately these troubles were of the pre-flight variety and the airplane went through its demonstration and acceptance trials with a clean slate. The partly exposed main wheels did not have a

I. M. LADDON—B. Sc. McGill University, 1915. Transferred to Engineering Division of Air Service from Cadillac Motor Car Co., 1917. Designed first airplane, 1919, and first American all-metal airplane, 1922. Resigned from Engineering Division of Air Service (McCook Field), 1927, and joined *Consolidated* for the purpose of designing flying boats and bombers to supplement the training plane division. Appointed Vice-President and Chief Engineer, 1935. Has been continuously engaged in aircraft design since 1917 and has numerous patents covering aircraft and devices for same.

detrimental effect upon speed and the functioning of the tricycle gear, including the ground handling qualities came up to our expectations. From the standpoint of pay load and range as well as a fair turn of speed, the PBY amphibian can compete successfully with any amphibian in existence and there undoubtedly is a field for commercial as well as military versions of same.

B-24.

Last but not least of our current production models to have been developed is the *Consolidated* B-24, the four-motored Army Bomber. In January, 1939, the conception of this airplane had not reached the stage where even a three-view drawing of same existed. We received the XB-24 contract March 31, 1939, and with the full cooperation of the Air Corps and plenty of sweat from the collective *Consolidated* brow, the XB-24 made its initial flight December 29, 1939. Of course, we were helped to some degree by flight tests of our Model 31 which we used as the prototype for the XB-24, the wing, flap and tail being the same aerodynamically. As in the amphibian, the tricycle gear worked out very well and while we had the usual difficulties during the early stages of flight testing, these have been corrected and we feel the B-24 is a thoroughly good airplane with superlative performance. Along with Model 31, the B-24 demonstrates the fundamental design principle that maximum efficiency is attained when the smallest possible airplane

(Continued on page 71)



The U. S. Army's latest *Consolidated* contribution, the B-24 (*Consolidated Model 32*)

PROBLEMS OF THE

THE President of the United States, before a joint session of Congress, on May 16th of this year, said in part:

"Our own vital interests are widespread. More than ever the protection of the whole American Hemisphere against invasion or control or domination by non-American nations has the united support of the twenty-one American republics, including the United States. More than ever this protection calls for ready-at-hand weapons capable of great mobility because of the potential speed of modern attack . . .

"With the amazing progress in the design of planes and engines, the airplane of a year ago is out of date now. It is too slow, it is improperly protected, it is too weak in gun power . . .

"I believe that this Nation should plan at this time a program that would provide us with 50,000 military and naval planes . . .

"From the point of view of our own defense, therefore, great additional production capacity is our principal air requisite."

The problems that the President put to the country are great. Among them are the necessity of taking full advantage of

the lessons learned from Europe and the need for standardization of design to permit greatly increased production rates. This latter call for complete understanding and cooperation between the military services and the manufacturers.

Meanwhile research and development must not be overlooked if our Air Corps is to continue to hold its enviable place among the nations. In this connection we are indebted to the important part played by the National Advisory Committee for Aeronautics for its supervision of the scientific laboratory, in connection with fundamental and basic research and in coordinating these activities it has prevented unnecessary overlapping and duplication of efforts. It has also served a very useful purpose in the military experimental engineering field, having made possible the practical application of established scientific facts to the development of military aircraft in cooperation with our own research and applied research by the Materiel Division, Air Corps laboratories at Wright Field, and also with the Naval Aircraft Division.

Almost five years are required between the drawing board stage of a design and quantity production. After the preliminary designs have come off the boards in-

numerable changes are made. A mock-up, which is made of wood and other materials, is then built which is a facsimile of the proposed finished product. Then more changes, finally a prototype is built for full test purposes. This ship is flown and carefully tested in all phases and any further required changes are made before a final design is decided upon, and orders can be let for quantity production. The manufacturer then makes the dies, tools, jigs, patterns and fixtures. After this, production starts on the many parts that go to make up an airplane, and these parts are painted and assembled, and motors and instruments installed to make the finished product.

Partly to decrease this time consuming procedure expenditures totaling about \$12,000,000 are to be made on experimental development during this fiscal year. It is clear that we must devote more time and money to research and experimentation if we are to excel in the field of aeronautics. Experimental development has assumed many forms, sub-sonic flying has been accomplished by high pressure cabins and supercharged motors. This has clearly increased the effectiveness of our bombers which now operate at altitudes of 20,000 ft. and over.

December, 1940

Instrument flights are no longer considered extra hazardous undertakings due to the perfection of automatic devices by the Air Corps. Other developments have put flying many paces ahead. For example, retractable landing gear, 2000-H.P. engines, high octane fuels, self-sealing gas tanks, armor protection for pilots and crew, and others too numerous to mention here. All these factors have received their full share of attention from us.

New methods of construction as well as new materials are constantly being sought to shorten the manufacturing time required and to lighten and strengthen the planes themselves. Stainless steel is finding its way into some new ships as it is well adapted to welding. Also plastics are being used to mold some large sections of some types of planes into one piece.

We intend to establish a laboratory just for engine research, in order to increase speed and range and to reduce drag. We have now under construction a new motor

in manufacture must be frozen and substantial amount of ships produced without any changes, in order to get mass production results. Mobilization of the aircraft manufacturers is well on its way and I have hopes that a monthly capacity of 1200 planes and about 2300 engines will be reached in this current year. From my talks with these manufacturers I believe that with the Army and Navy Procurement Program plus the purchases by foreign governments, American capacity to produce 50,000 planes per annum in the not too distant future, is entirely within the realm of possibility.

Securing trained pilots required to man the additional planes we are building has made it necessary to establish two new training centers, each consisting of basic, advanced and specialized flying training schools, and to triple the capacity of the nine original civilian flying schools, by doubling their number. As a result of this increased capacity of our pilot training



By LIEUT. GENERAL HENRY H. ARNOLD
Deputy Chief of Staff for Air.

U. S. ARMY AIR CORPS

smaller in size and larger in H.P., and as it is a flat motor it fits into the wings and therefore reduces the drag.

We have benefited by the large foreign orders that have been placed with American manufacturers as new facilities have been built to accommodate these orders and have thus stepped up production. There have been great improvements in designs that would ordinarily have taken years of experimentation.

The war in Europe is in reality a full scale laboratory in which planes are being tested under actual war conditions. From the maze of claims and counter-claims and with the aid of our observers we are gradually getting facts from which we have been able to reach some definite conclusions. Five of them are as follows: (1) we require leak-proof tanks, (2) armor is needed at vital spots, (3) 30-caliber machine guns are inadequate; 50-caliber is needed, (4) bombers must have rear hemisphere firing, (5) bombers must have more range for if they cannot reach the theatre of war they are of no value. We recognized this last fact some time ago, and commenced building long-range bombers such as the Consolidated B-24; ships of these large types still remain a challenge to the world of today. It is also apparent that at some point designs

system, we are now training pilots at the rate of 7,000 each year. To select these men, we will have to examine 75,000 applicants having the necessary educational qualifications. To carry out this training program, we have ordered a large number of additional primary basic training and advanced training planes together with field equipment, clothes and parachutes. The war in Europe has made clear even to the doubters of aircraft efficiency that air supremacy is the main factor and has made it possible for Germany in less than

one short year to conquer Poland, France, Denmark, Belgium, Holland and Norway. Armies and navies are, of course, absolutely necessary but if any opposing air force gets complete control of the air over them they are practically impotent.

I think that *Consolidated Aircraft Corporation* should be congratulated on its large expansion, some of which is now completed. It shows the Company's willingness and ability to meet the demands placed upon it by the Government and foreign users of its products.

The first planes built by *Consolidated* and delivered to the U. S. Army, were TW3's . . . completion of a contract received before *Consolidated* was formed.





porch of the *Consolidated* plant. All other activity was afloat or sunken.

The aforementioned Macaulay gleam might never have reached fulfillment had not the city started construction of the mole pier. Dredging for the pier brought up the question of a disposal area for the dredged material, which was eventually dumped north of Date Street, and thereby plans for the field became a concrete thing. In 1927, civic and air-minded ideas brought a bond issue into being, which provided for additional dredging, and the filling of 142 acres to be known as Unit No. One of the Municipal Airport.

The original fill was dumped, necklace fashion, around the outer edges of the surveyed area, holding the embryo field in place, while drainage, filling, and future surfacing of the field could be accom-

Boulevard, Airtech moved across the way and onto the field proper. Other companies saw the worth of the place as more and more improvements were added, and the field staggered under the recommendations given it by men of high authority and governmental commissions.

In 1931 the Pacific Air Transport Company entered into a ground lease, and constructed a combination hangar, office building and depot, which has now become the southern terminal of the United Air Lines. In 1932, Ryan leased the first two of several parcels of land to become a life-long member of the Lindbergh Field fraternity. Because of the unique situation which the field commands, being located on bay area for the landing and taking off of seaplanes, it has a sterling worth found in few other spots. In the

MACAULAY'S GLEAM...

By J. W. BRENNAN, Port Director

WHEN Lindbergh Field was nothing but a gleam in the eye of Major Macaulay, *Consolidated Aircraft Corporation* was a sturdy child shuffling off to Buffalo. A comparison of the two birth-dates shows that *Consolidated* came into being in 1923, using the unoccupied portion of a wood working plant, while Lindbergh Field wasn't granted the official benefits of a christening until the latter part of 1928.

However, the dedication services at that point, were the culmination of several years of truly muddy struggles which began at roughly the same time *Consolidated* started its first operations. To those of you who approach the plant daily by a paved highway, the sight of the original field, bay water lapping at the foot of India Street bluff, just east of your parking lot, would be a far cry from the 450 acres which comprise the field of 1940. Prior to 1923, the area would have presented a paradise to *Consolidated's* "Roody" hunter, Jack Thompson, or to Jim Kelly, the "teal kid", or to the "pride of the shark fishermen's union" Hank Golem. At that time it was haunted mainly by Harbor Engineer Nick Donnan, who supported himself in his spare time tramping for shrimp in the shallow water. Many a Canadian honker came to an untimely end through the machinations of that "Champ-peon" of Harbor Department prevaricators, Walter Cole, in those waters which were to roll away and become the front

plished. San Diego citizens stopped collecting dirt about their neighbors, and gave their excess soil to willing trucks which plied steadily month in and month out, filling the boggy center of the field.

Veterans of those days claim that it was not an uncommon sight to fear for the lives of men and equipment who would venture out into the muddy depths to unload a truckload of fill dirt to speed the field into being. Miles of storm drain were laid end to end to carry off the rain waters into the bay. The aforementioned veterans tell of days on end when Nick Donnan would crawl ahead of a crew down a length of pipe to prove that both pipe and the field on top of the pipe were safe for man and climate.

Shifting to a Buffalo locale, July, 1928, found *Consolidated* making the third of its expansions, which were to become so habitual, and had leased additional land to become *Consolidated* Unit No. Three, while in August, 1928, Unit No. One of Lindbergh Field was equipped with the astonishing number of four runways 2,500 feet long, 142 acres of surfaced ground, one dedication, and one tenant.

The Airtech Company, with Norman Lawson and Dug Kelly at the wheel, risked using the field, but with a certain wholesome fear, kept their office and their most treasured possessions on the other side of the street, then known as Atlantic Street. However, as the field continued to grow, the dirt street became a paved Pacific

latter part of 1935, the Coast Guard Air Station became an inhabitant of the outer end of the field where runways and a sea-plane ramp had been added.

As the field grew, bringing the glowing promises of the dedication speeches to realization, *Consolidated*, having outgrown its eastern swaddling clothes, heeded the words of Horace Greeley, and in 1935, came west. The move jumped the plant from accommodations of 30,000 sq. ft. of office space, to one in San Diego of 246,841 sq. ft., and in doing so, held a trek which is practically unparalleled in industrial history for distance and amount of equipment moved.

Those were days in which Major Fleet, who had been known in Buffalo as "President" as well as other titles too dignified to mention, was dubbed "Ground Hog" by Harbor Department officials. A name, by the way, which is as true today as it was then, because it is scientifically known that he is not bashful about asking for any piece of land in the surrounding terrain for present or dreamed future expansion of benefit to the Defense Program. Those were days when Chuck Leigh, advance scout for the migration, held his office in a local brewery, and to this day bemoans the necessity for an office in any other spot.

Those were days when the Harbor office was swamped with plans and blue prints, and cries of "more land" echoed above and beyond the limits of the Harbor

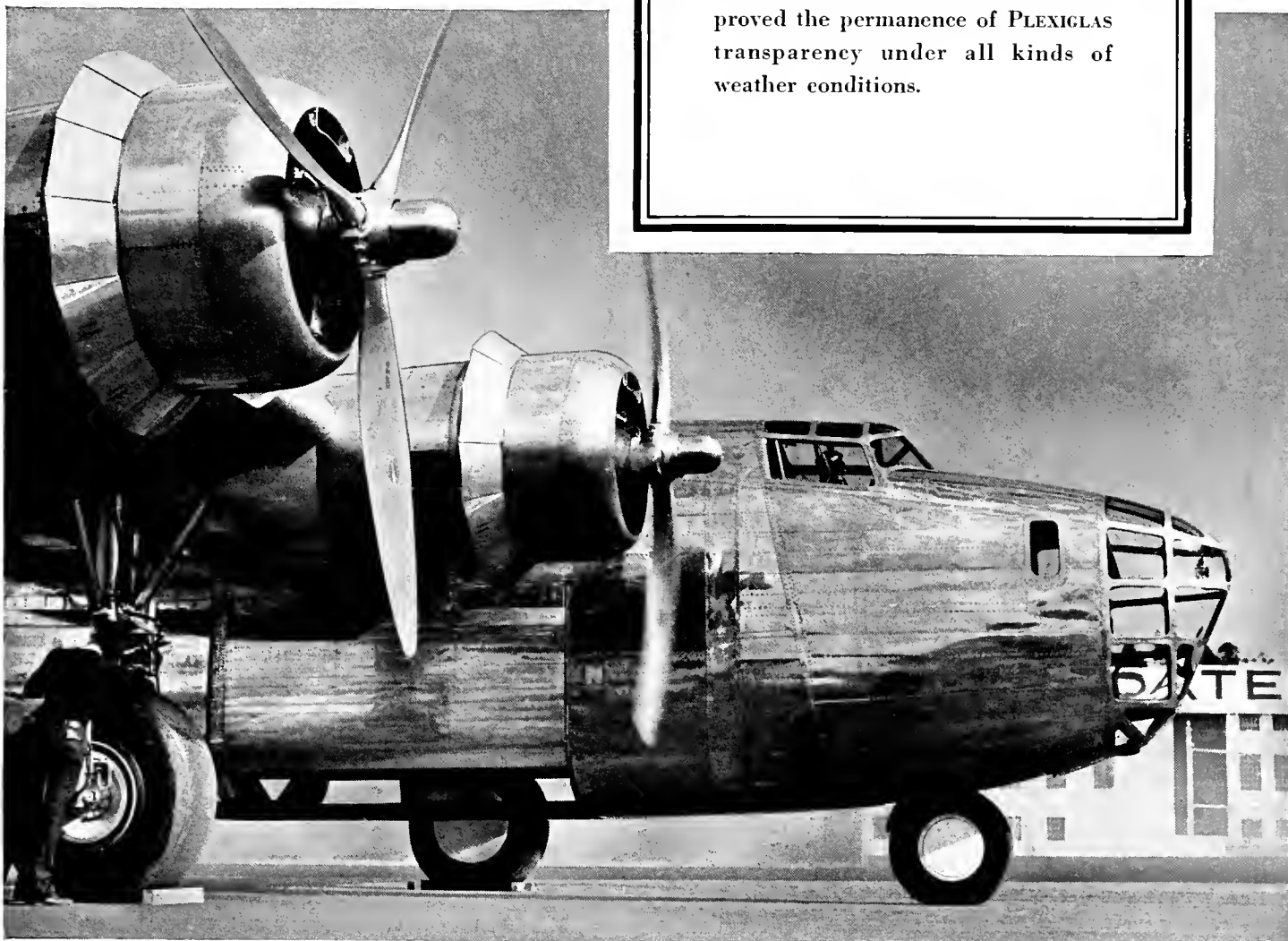
(Continued on page 56)

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— Plexiglas shaped to specification is used for the curved transparent sections of the Consolidated XB-24 Army Bomber. —

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MAJOR E. R. McREYNOLDS,

Air Corps Factory Representative,
San Diego Area.

Enlisted September 2, 1917, in Aviation Section Signal Enlisted Corps at Omaha, Neb.

Active duty at Detroit, Mich., Jan. 9, 1918.

Entered School of Aeronautics at Cornell University at Ithaca, N. Y., on March 1, 1918, rated as Cadet.

Concentration Camp at Camp Dick, Dallas, Tex., on May 14, 1918.

Transferred to Carlstrom and Dorr Field, Arcadia, Fla., and started flying training on June 1, 1918.

Sent to Barron Field, Fort Worth, Tex., in August 1918.

Commissioned 2d Lieut. Air Service, National Army, on October 8, 1918, rated Reserve Military Aviator.

Transferred to Post Field, Fort Sill, Okla., October 23, 1918; as student pilot, Observation Course.

Transferred to Kelly Field, Tex., October 23, 1919, and to 8th Aero Squadron, McAllen, Tex., Border Patrol on November 5, 1919.

Rated Airplane Pilot January, 1920.

Temporary duty at Kelly Field as student, Air Service Mechanics School, May 1st to August 1, 1920. Promoted to 1st Lieut. U. S. Regular Army on July 1, 1920. Temporary duty from McAllen, Tex., to Langley Field, Va., during bombing of German navy vessels from May to October, 1921.

Rejoined 8th Aero Squadron at Kelly Field, Tex., October, 1921.

Transferred to Philippine Islands, Camp Nichols and Stotsenburg. Sailed March 4, 1922.

Transferred to Bolling Field, Washington, D. C., sailed March 10, 1924, spent one (1) month in China, arrived Bolling Field, June, 1924.

Transferred to Langley Field, Va., January 10, 1926, with 2d Bombardment Group.

Temporary duty at Sesquicentennial, Philadelphia, June to December, 1926. On



leave from September 1st to December 20, 1926, with Philadelphia Rapid Transit Company as Operations Manager, operating three (3) Fokker transports to Washington and Norfolk.

Returned to Langley Field, Va., December, 1926. Transferred to Keystone Aircraft Company, Bristol, Pa., November, 1927, as Air Corps Representative. On leave from August 15th to December 1, 1929, with Kohler Aviation Corps, operating air line from Grand Rapids, Mich., to Milwaukee, Wis.

Transferred to Wright Field, Dayton, Ohio, March, 1930. Chief of Procurement Inspection Branch.

Transferred to Maxwell Field, Montgomery, Ala., as student at the Air Corps Tactical School, July, 1931. Graduated 31 and 32 year course. Assigned to Maxwell Field, Post Engineering.

Transferred to Kelly Field, Tex., June 15, 1933, then to Randolph Field, Tex., June 22, 1933. Post Engineering. Promoted to Captain, October 1, 1934.

Transferred to Langley Field, Va., July 1, 1936, assigned to 2d Bombardment Group. Temporary duty from July 14, 1936, to February 1, 1937, to Office Chief of Air Corps, Wright Field, and Boeing Aircraft Company, Seattle, Wash., relative B-17 airplanes. Temporary duty March Field, Cal., February 10th to April 1, 1937, relative B-17 airplanes.

Rated Military Airplane Pilot, June, 1937.

Rated Command Pilot and Combat Observer April 1, 1939.

Promoted to Temporary Major, October 12, 1937.

Promoted to Major July 1, 1940.

Took over office at Consolidated June 23, 1939.

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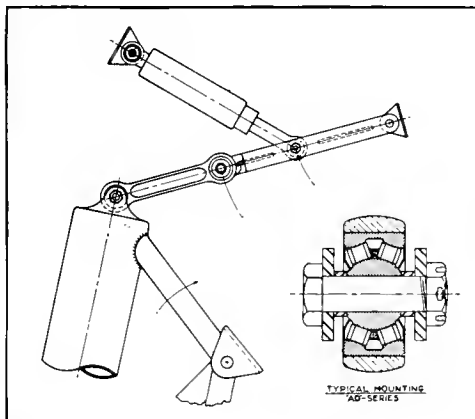
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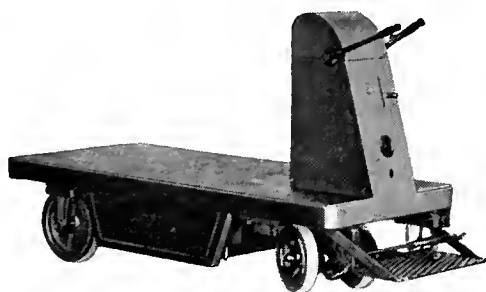
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Upper: Pitcairn PA-3 equipped as a monoplane with Fowler flaps in 1929. 40% Chord flap, extending 70% of the span.



Center: The Pitcairn PA-3 with standard biplane wings. Photos taken at New Brunswick, N. J.



Below: The Canuck or Canadian version of the "Jenny" in 1927 at Philadelphia. Note the Fowler flaps below this monoplane version of this famous type.

lifting power. So large is this increase in lift under certain designed conditions such as a 40 percent chord flap over the entire span of a wing that the maximum lift of a normal wing is increased as much as two and a half times. Despite these known facts it was practically impossible to break through the apathy towards the acceptance of the monoplane type of wing construction, because it was by virtue of this extremely high increase in lift of the Fowler flap that it was possible to substitute a monoplane wing for a biplane. Anyone familiar with the pioneering efforts of Anthony Fokker and Bel-

nautics 60-foot wind tunnel and then subsequently flown. As compared to the original F-22 airplane the stall speed was reduced 7 MPH, the high speed increased nearly 4 MPH and both the take-off and landing distances considerably reduced.

In the same year of 1934, during the Fourth International Competition at Warsaw, Poland, the Fieseler Fi-97 took 5 of the 14 first places. The remarkable feature of this airplane was the use of full span Fowler flaps in combination with a new type of lateral control. This development was done in Germany.

It should be noted here that the monoplane idea was emerging very rapidly after 1930 and it is beginning with this fundamental change in aircraft design that flaps of various types began to receive attention. It is believed that Northrop was the first one to apply the split type flap to production airplanes. The split flap was one of the last inventions of Orville Wright, one of the original inventors of the airplane. The split flap was a plain plate deflected below the

(Continued on page 52)

THE FOWLER FLAP and ITS POSSIBILITIES

By HARLAN D. FOWLER

SINCE its conception in 1916 the development of the Fowler flap principle has passed through practically every known stage of the proverbial struggle of an invention conceived ahead of its time. In fact twenty years transpired before its first practical application to extensive commercial use. It may be interesting to briefly review this transition period.

The greatest difficulty surrounding the acceptance of a high lift device prior to about the year 1930 was the almost universal use of the biplane type of wing construction. The wing loading was low, ranging from 6 to 15 pounds per square foot, representing wing surfaces of extremely large proportions compared to present day practice. Now the basic principle of the Fowler flap is (1) variable area, (2) variable camber and (3) a gap between the wing and fully extended flap. The combination of these factors was obtained by extending a separate airfoil surface from its closed position under the trailing surface of the wing rearwardly and downwardly. This increased the chord (or width) of the wing. The aerodynamic effect was to so increase the circulation of the air around the wing as to increase its

lanca in introducing the monoplane would understand this situation.

Realizing the importance of providing by actual flying demonstration the economic advantage of the Fowler flap, the writer constructed a monoplane wing incorporating this device. An old type Canuck airplane was obtained, its biplane wing of 330 sq. ft. area was removed and the monoplane wing of 136 sq. ft. normal area, extended area 166 sq. ft., substituted. The test flight showed that the landing speed was about the same in both cases, but the top speed increased from 90 to 100 MPH. This increase in speed was equivalent to changing the power of the engine from 90 to 135 HP. These flight tests were made in 1927, and substantiated again in 1929, when the same wing was installed on a Pitcairn PA-3.

It was not until 1934 that substantial progress was made. In that year a Fairchild F-22 was equipped with a specially designed wing and delivered to the Bureau of Aeronautics. This airplane had the unique experience of being tested in the National Advisory Committee for Aero-

First seaplane to have Fowler flaps . . Consolidated Model 31.





and forms must be installed so that he can keep abreast of the business and control it. The primary function of the accounting department is to keep records of the elements of production so that the management can tell at all times the condition of each department.

The next step upward in the size of an establishment causes the division of the accounting department into many sections, each embodying one or more func-

the accounting department personnel and methods. No accounting system can stand up long unless it is well designed in the beginning. Flexibility is imperative where there is a constant change in the volume of business. Some new conditions may be encountered every day, but a properly designed system will permit increases and other changes to flow through the accounts without unusual strain.

In spite of all the necessary flexibility

ACCOUNTING PROBLEMS OF A

By W. H. SHANAHAN, *Treasurer*

IN the past, many employees and even some executives in the production departments of various businesses have regarded the office force as a sort of necessary evil. Production men were prone to kick about growing "overhead" and "red tape" which is forced upon them. In certain phases of the growth of a company, the "overhead" does increase proportionately more rapidly than the production department.

The very nature of big business makes this necessary. In a small business the boss can, and often does, keep the books in his head. He knows everything that goes on; how long each employee works, what materials are used where, and how much money is coming in and going out. Eventually, as the business grows, he reaches the point where he can no longer keep track of everything mentally. Various records

tions. The accounting department at *Consolidated* is divided into the following sections: timekeeping and payroll, accounts payable, accounts receivable, cost accounting, expense analysis, billing, receipt and disbursement of cash, and general ledger accounting. These functions are separate, yet interrelated, and all the complicated figures eventually end up on comparatively simple periodical statements.

If business never changed, accounting would be largely routine. Every new order for airplanes, every new purchase of materials, machinery, or supplies means new accounting problems. New taxes, new laws, increasing personnel, and changes in working hours require some modification of accounting procedures.

The tremendous increase in our business has been a strenuous performance test of

there must be many rigid rules and strict routine. Each irregular transaction takes much more time than the standard operation. Holding irregular transactions to an absolute minimum is accomplished only with the complete cooperation of the plant managers. In fact, the success or failure of a payroll system during a period of expansion is due in no small part to the cooperation which the accounting department receives from the operating departments.

In order that the system may work effectively, the employees must be used effectively. The work of each employee in the department must be carefully analyzed, and as the business grows, each employee's work becomes more and more specialized. This means that an employee who has been accustomed to handling three, four, or more different items will



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The die illustrated shows the ROLLED KIRKSITE SHEARING DIE mounted on steel and ready for use with a steel punch on a 1000 ton press. The small splotches are the result of grinding off rivet heads. The band just inside the shearing edge is a rubber strip which ejects the blank from the die. It is positioned on the lower platen of the press by dowel pins. The punch is held to the upper platen by permanent magnets.

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LOS ANGELES

gradually be forced to specialize in one field. He will have to organize his work similar to the line-production method which might exist in many manufacturing operations.

Often, employees resist this movement toward specialization. They have the feeling that they are being forced to become a small cog in a big machine. To some extent this is true. However, they must learn that this specialization is vital to big busi-

ness. Their recompense in handling fewer operations, is in the increasing number of variations in each operation. Office positions are not static, employees change operations from time to time, and the operations themselves divide and coalesce. Any employee who stays in the department very long comes to know most of the operations very well. The larger the company, the more supervisory jobs there are, and the management is not going to neglect training men capable of filling these jobs.

Each problem due to our large increase in business trails a string of problems of its own. For instance, we need new buildings and new equipment; that means larger inventories; which means increased insurance.

Overtime presents still more problems. In the longer work day, the average

amount of work accomplished per man-hour usually decreases, and the cost of manufacturing increases sharply. This means complete revision of budgets and forecasts.

This increase in business brought one special problem, that one of greatest interest to each employee—earnings. Overtime nearly doubled the number of calculations necessary to figure out each man's pay check. A great many new workers purchased tools or insurance, causing a tremendous increase in the number of payroll deductions. A separate account

must be set up for each employee who purchases such items through the company. The possibility of error increases as the payroll employees have to work more rapidly; but if any check is even a penny off, we are sure to hear about it. Without the aid of high speed mechanical tabulating equipment, it would be almost a hopeless task to get out the pay checks each week. Believe it or not, the machines make mistakes too. Additional analyses made from the pay checks usually catch these errors.


For all Army and Navy contracts, the law requires the company to keep a detailed record of the cost of the labor, material, and overhead charged to these orders. Auditors representing the War and Navy Departments practically look over our shoulders while we work. In addition, we must keep accurate records in order to

goodwill of the vendors through prompt payment of invoices. Regardless of the volume of work, purchase invoices must be paid when due. We expect that kind of treatment from our customers and it is only fair that we treat our vendors accordingly.

In order to keep a close watch on the progress made in all departments, the management is given current reports reflecting the operations of the company. As the volume of business grows, the preparation of these statements becomes quite complicated. The success of the company as well as the permanency of our jobs depends on how well the management runs the business. It is, therefore, the duty of the accounting department to provide the management with reports which reflect the operations of the business accurately.



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THE FOWLER FLAP AND ITS POSSIBILITIES

(Continued from page 49)

trailing surface of the wing, and its chief advantage was to reduce the speed and landing run on the ground. It had no beneficial result in improving the take-off run. As already shown, the Fowler flap had all around advantages and particularly the large reduction in take-off run.

So in 1937 appeared the first successful commercial application in the well-known Lockheed 14, the type in which Howard Hughes flew around the world in four days.

In 1939 appeared the *Consolidated* Model 31, the first seaplane on which Fowler flaps were used. When loaded to carry 45 lbs./sq. ft. the stall speed was reduced 28 MPH by means of the flaps and without the use of power.

One of the outstanding spectacular feats of 1939 was the flying from Los Angeles to New York in about 7 hours of the Lockheed XP-38 the 400 MPH version of the latest type of pursuit for the Army, the fastest long range weight carrying military airplane in existence today. In spite of its high wing loading the take-off ground run and distance to clear a 50-foot obstacle is reduced approximately 30 percent by using the flaps in the extended position, as compared with the flaps retracted.

Another unusual development also took place in 1940 with the appearance of the Ryan YO-51 observation airplane. This model was the second type to use full span Fowler flaps with a special type of lateral control device. Many who have witnessed its uncanny slow hovering speed foresee the possibility of the long discussed safe airplane.

In between each stage of a new airplane using the flap are records of exhaustive wind tunnel research on the part of various manufacturers to determine the best type of flap to use. This research is still continuing and from the successful application so far made it is believed that the Fowler flap is here to stay for a long time, because we are still far from utilizing the tremendous increase in lift obtainable with this flap. This is predicated on the fact that the weight of sustained load per square foot of wing area is increasing. In other words, the wing surfaces are being made capable of carrying larger and still larger load per square foot area. For instance, in 1930 the weight carried per square foot was about 15 lbs., in 1935 it was about 25 lbs., in 1937 it went to 32 lbs., and in 1940 it is over 40 lbs. In Howard Hughes' airplane it

(Concluded on page 58)



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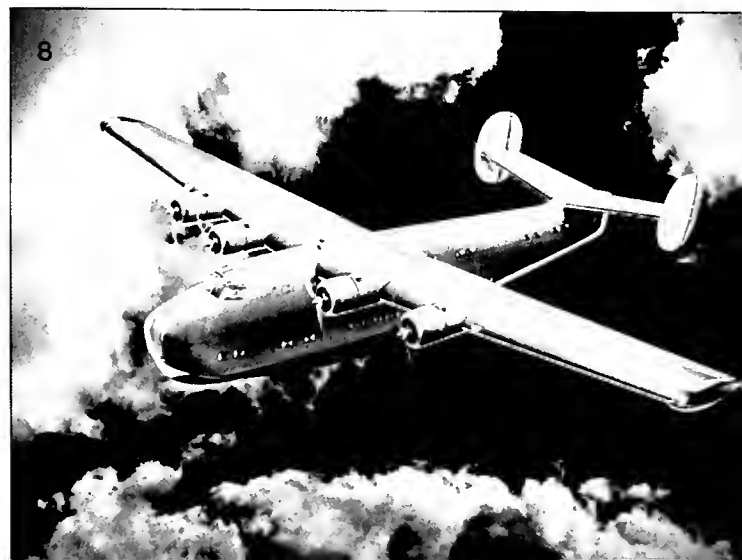
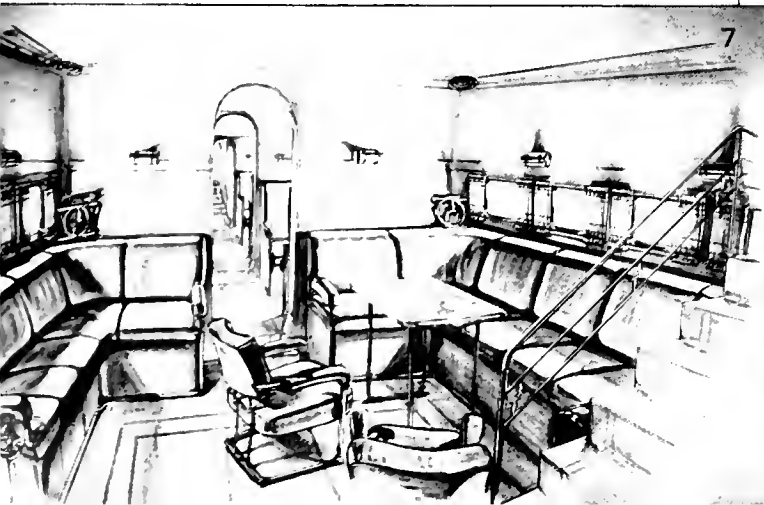
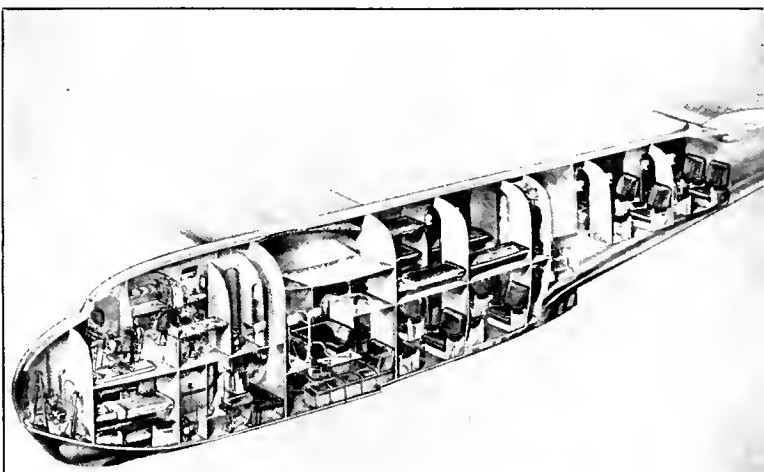
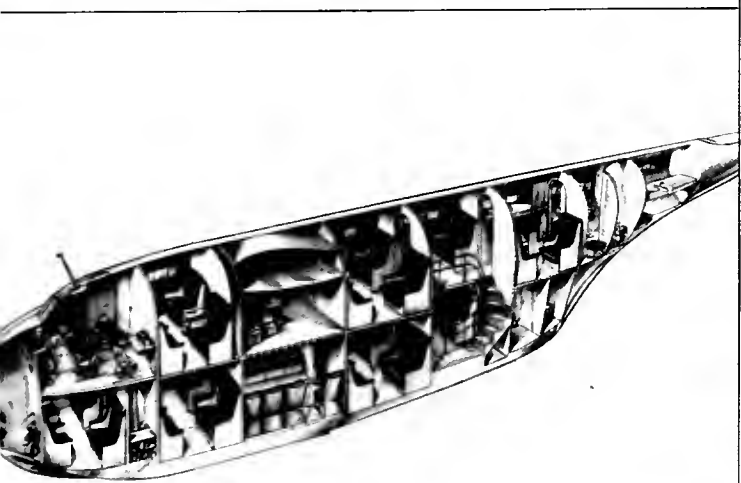
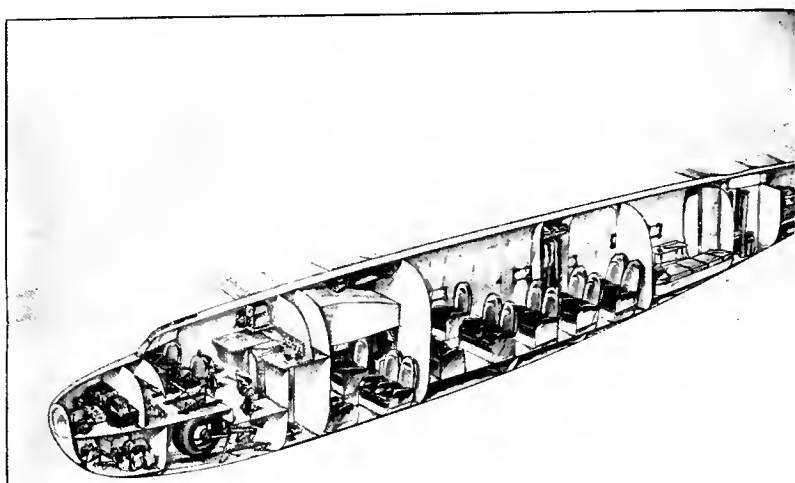
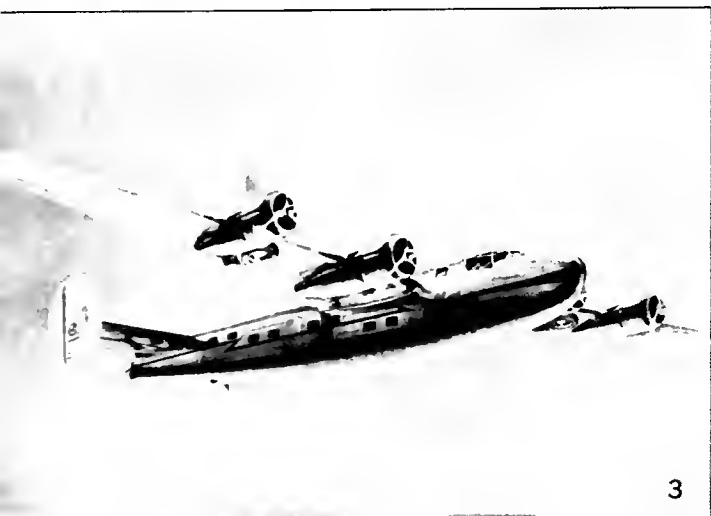
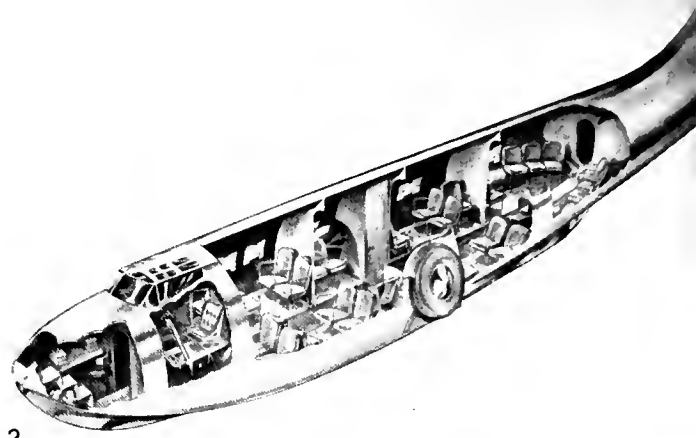
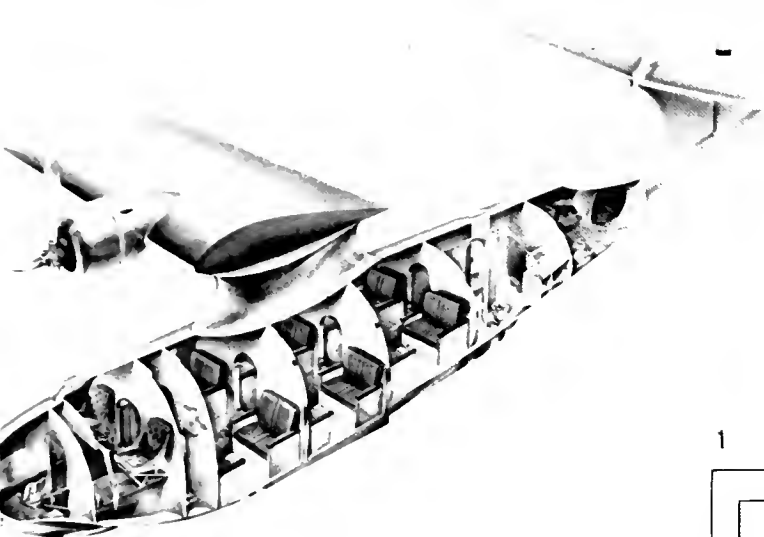
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LAST year the course of our aeronautical export trade spiraled to a new high of over \$117,000,000 with American-built planes, aircraft engines and allied products going to over one hundred markets abroad. Throughout most of 1939 there still were that many political entities, and non-military business remained an important factor. Our exporters were "flying contact" with salesmen moving from prospect to prospect. Then late in the year as the war clouds rolled up there were a few months of uncertainty, but early in 1940 export landmarks again made their appearance—overseas trading rapidly resolved itself into the simplified process of selling great quantities of aircraft, practically all military, and these to relatively few customers. As time went on the expedencies of our national security more and more dictated the direction, nature

to the best estimates now available, this will represent more than half of our total output.

Tuned to the requirements of an accelerated national defense program and its international ramifications, American aviation equipment manufacturers are devoting their ever-increasing productive energy to a single, common purpose. That this does or is intended by our Government to preclude the maximum possible of export sales, is a definitely erroneous idea. With all of the spectacular surface indications of military aircraft development and production, certain fundamental facts are generally overlooked. As an inevitable circumstance correlated to national defense there is probably now going on the greatest development of transport aircraft that has ever taken place in the history of this American industry—not only are these



STILL ON THE EXPORT BEAM

By IRVING H. TAYLOR,
Manager, Export Department,
Aeronautical Chamber of Commerce of America, Inc.

and extent of our aeronautic exports.

The more obvious characteristics of our principal export business today require but passing reference here. For many years prior to the time that the countries of Europe and the Far East entered on the last lap of their competitive air armament race, exports, composed largely of civil aviation equipment, accounted for one-third to one-half of the American output. The sustaining and stabilizing influence of this trade on our aeronautic industry strengthened the foundation of what today is the outstanding industrial defense bulwark not only of this country but also of the world democratic order of things for which we stand. While force of circumstances has altered the predominating complexion of our aeronautic export trade and the method of pursuing it, the important fact remains that this business in 1940 is moving at the annual rate of better than \$300,000,000 and again, according

to the best estimates now available, this will represent more than half of our total output. leviathans of the air needed, in a military sense, for the transport of materials required for the defense industries, military supplies and troop movements but also to meet the ever-increasing traffic demands of our airlines which, with their highly trained personnel, represent a potential defense auxiliary of inestimable value. Each heavy bomber or flying boat has or will appear on the drawing boards in its peacetime garb of commercial transport; many primary trainers were evolved from or will be modified to become equipment in the hands of private flyers. So we have plenty of current and potential export types whether the demand is for commercial, private or military planes.

With all of the important aircraft producing countries at war except the United States a ponderable responsibility devolves upon our Government and our manufacturers to maintain not only our own high degree of commercial aviation de-

velopment but also to support similarly civil aviation in other parts of the world where such activity goes on without interruption. That we are meeting this responsibility is clearly evidenced by the sale of equipment to South African Airways, the airways of Venezuela, Colombia, Canada and, more recently, Chile. The military and civilian aviation schools and aero clubs of Latin America are able to keep up their pilot training programs because they have found in the United States a dependable, non-belligerent source of superior flight equipment.

Because it is good defense policy and because from the economic and cultural relations standpoints it is equally important, exports to certain markets abroad will undoubtedly be allowed to continue to the extent that our increasing production permits beyond the immediate requirements of home defense.

(Continued on page 81)

CONSOLIDATED COMMERCIAL ADAPTATIONS

While emphasis is currently upon military production, each Consolidated design has inherent in it a distinct commercial adaptability, as can be readily seen by the perspective drawings of artist Joe Szakacs reproduced on the facing page.

Fig. 1 is an arrangement of the familiar Model 28 twin engined flying boat (In the U. S. Navy the PBY) arranged for passenger service with seating for 24, with of course, Pilot, navigator, and baggage compartments, lavatory, galley, etc.

Fig. 2. The familiar Model 28 amphibian version, combining boat and land plane ad-

vantages with the ability to operate to and from virtually any spot on the face of the globe. This is shown with a seating arrangement for 34 passengers.

Fig. 3. Consolidated's latest, the four-engined land plane, Model 32, as it would appear in use for land passenger service.

Fig. 4 is a cutaway to show its adaptation for 18 passengers on a long distance, high speed service in which its speed and range express to the utmost the commercial advantages of this design.

Fig. 5. Two decks deep. The Model 31 twin-engined flying boat shown in an ar-

Drawings by Joe Szakacs

angement for the accommodation of 52 passengers plus the crew, with galley, lavatory, baggage space, etc., etc.

Fig. 6. Model 29, the four-engined flying boat, also with two decks, in an arrangement for trans-oceanic passenger service including berth accommodations. This is a de luxe arrangement, and Fig. 7 shows a view from within as the passengers would see it. Figure 8 is the same Model 29 arrangement showing how the full ship would appear in flight, winging its way at high speed while its passengers enjoy the full comfort and pleasure of its accommodations en route.



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MACAULAY'S GLEAM

(Continued from page 44)

Administration Building. Through the offices of the WPA and the War Department, plans were rushed through for more improvements before the ink could be dried on the approval of those in progress.

In the midst of this activity, the first unit of the San Diego *Consolidated* plant was dedicated, moving day was a thing of the past, construction was under way full speed, and the date arrived for the first bomber to be taken aloft. All aircraft and harbor officials crossed their fingers, and held their breaths as the crisis approached. With Bill Wheatley's usual skill and cunning, the huge ship soared aloft, and as it returned to the limited landing field all bolts were still in place, everyone gave a sigh of relief, and the field was under way.

Within a year, the plant gave another sigh which presaged another desire for improvement, and in May of 1936, the city voted to trade pueblo lands to the Marine Base to acquire another 60 acres of land to be added to the field's boundaries. Plans were made to include all tidelands to the south as far as Grape Street, giving an ultimate field area of 450 acres. The unfilled portion on the northwest, approximately 123 acres, was handed over to the tender ministrations of an army dredge for filling, and to the WPA for eventual surfacing and oiling.

At the present time, facilities and improvements of the field have kept pace with industrial expansion, and tax evaluations place the value of the field and its industries in excess of the entire balance of San Diego County.

In the short space of 13 years the field has grown from a swampy bayside lagoon to a bustling aircraft subdivision, and *Consolidated* has emerged from the corners of a warehouse to a plant so large, that it took its President ten minutes by auto, with an admiral as pilot, to speed through the plant looking for a new bomber, which is slightly in excess of the size of the proverbial needle.

Harbor Department officials, who are technically the guardians of the field, inasmuch as it is located on tidelands, are in a state of perpetual motion to be one jump ahead of the expansion guns of companies located on the field. *Consolidated*, in a private race of its own, keeps its experts burning midnight oil making plans for more and more expansion, while Claude Ryan, not to be outdone, is doing his "damdest" to reach and if possible outdistance the *Consolidated* plant. Knowing

(Continued on page 95)

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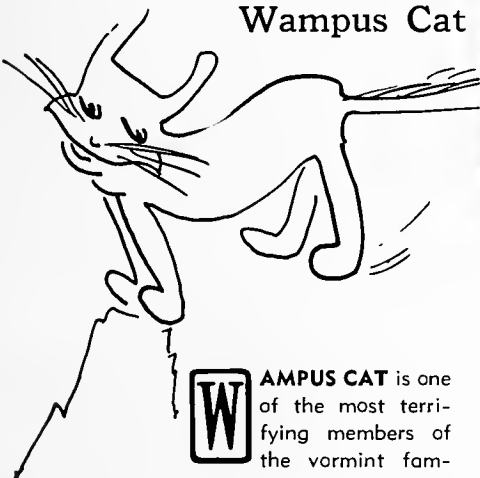
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The Fowler Flap and Its Possibilities

(Continued from page 52)

was loaded to 48 lbs. This rapid increase in wing loading is what makes possible the phenomenal high speeds we are getting today—and still retain a safe landing speed. It is quite possible that by 1945 we shall see aircraft capable of carrying 75 lbs. per square foot with safety.

Large airplanes of 20,000 lbs. and over are particularly susceptible to advantages to be derived from the Fowler flap, because the cost and weight of such installation becomes progressively small compared to the complete airplane due to the fact that the size of the wing can be so reduced as to actually result in substantial savings in both categories.



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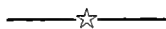
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sistant Chief of Inspection, a Lead Inspector, in charge of each of our various departments, who, in turn, has under him a number of Inspectors, varying with the size of the department.

The ratio of Inspectors to shop personnel is governed by many variables, and to establish a fixed figure as a criterion would be inaccurate and unwise.

Some of the governing factors that have a direct bearing on this ratio are: Quality of mechanics in the shop, capability and experience of inspection personnel, number of various projects going through the shop, layout of the shop,

INSPECTION AND

Inspection—"Is the mediate body thru which all of the aforementioned must be satisfied. It is the signature on the guarantee of the product."

In the aircraft factory, the one man who is never excused for a mistake is the Inspector. Mistakes can be made anywhere along the line, but it is up to the Inspection Department to find them, and see that they are corrected.

If the article manufactured is intended to be comparable to, or better than, any other of its class in the field, such as our products are, a very competent and thorough inspection set up is required. Everything must be given 100% coverage, from the raw material through fabrication, detail assembly, major assembly, up to and including delivery.

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sistant Chief of Inspection, a Lead Inspector, in charge of each of our various departments, who, in turn, has under him a number of Inspectors, varying with the size of the department.

The Inspector should be dependable, thorough, have the capability to read drawings, concentrate, apply good judgment, use common sense, and be able to get along with shop personnel.

Experienced inspection personnel is obviously most desired. An inexperienced man on inspection is strictly a liability until such time as he becomes familiarized with his work. If an experienced inspector is not available, the next best choice is a man with shop experience in the aircraft field.

Present conditions have made necessary the training of young men with very little, or no, shop experience, but with promising qualifications and background. During this training period they can be placed on repetitive jobs and later given

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diversified training, according to their ability and aptitude.

The Inspector must, first of all, be definitely and clearly informed as to his function in the organization.

Inspection is strictly overhead, and is maintained to insure that the finished article meets all requirements as to quality and standards laid down by the management, and specified by engineering.

It is a branch of our organization that is intended to *help* and *not hinder* in building airplanes.

We all strive for, but never hope to attain perfection. The job, if perfect,

all our dealings are open and above-board—we have nothing to conceal. As previously stated, it must be unquestionably satisfactory for the purpose intended, or it is not satisfactory to ourselves. Safety in our products comes foremost. From the management, down through the organization to each and every Inspector, the instructions are: "It must be 100% safe, or we don't want it."

Where there is a discrepancy, it is brought to the attention of our customers' inspectors. Repairs are never made until the proposed repair has been sanctioned by our customers' personnel. We have a



INSPECTORS AT CONSOLIDATED

would require only checking. Where it varies from fixed rules and standards is where the inspector is called upon to exercise his judgment. His decision, in such instances, based upon his knowledge and experience, combined with good common sense, is the yardstick by which he can be classified.

In making decisions, the Inspector should never be in doubt about any article being 100% O.K. for the purpose intended, on any articles he passes for use. Where there is the slightest doubt, he should consult his immediate superior, who will call upon Engineering, when necessary, for advice as to its safety. This requires a very close cooperation between the Inspection and Engineering departments.

In contacting our customers' personnel,

confidence established with our customers' personnel that is maintained by answering all questions pertaining to the work with the true facts, to the best of knowledge and belief of the Inspector questioned.

For obvious reasons, material and parts should be moved as little as possible. Inspection is conducted in or near the location where parts are made. It is easy to move the Inspector to the work, and we therefore endeavor to accommodate the shop wherever possible by conducting inspection wherever it is desired, and parts must be kept moving. Machined parts are inspected in a centralized inspection crib, where all necessary tools to make the inspection are kept.

The heart of an aircraft factory is its raw stores. The inspection segregation,

By JACK THOMPSON,
Chief of Inspection

marking, issuance, and control, is of vital importance. Although inspected at source, and covered by affidavits, all steels are chemically tested by our own laboratory before being released to stores. Where steel is to be used in the temper as ordered, a physical test is conducted also. Test bars accompany each heat of castings and forgings, in both steel and aluminum alloys, and the physical properties are verified by our laboratory.

Parts that are heat treated in our plant have a test bar included with each heat. This test piece is tested for physical properties before parts are released to the

(Continued on page 105)

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IN the airplane business we are all greatly interested in stress analysis and its application to the safe design of airplane structures. According to Webster's Dictionary, "analysis" is defined as the resolution of anything into elements, and examination of component parts separately, or in relation to the whole, etc. It comes from some Greek word which your writer can neither spell nor pronounce, meaning to unloose or to resolve. "Stress" is defined as a mutual force or action between contiguous surfaces of bodies, due to external force; the cohesive force or molecular resistance in a body opposing such action; specifically, the intensity of this force, commonly expressed in pounds per square inch. It comes from the word distress or from the Latin word "strictus," to bind tight, and we all know what the word

the skill of the pilot. The recent very great increase in speed has made the airplane particularly susceptible to large accelerations when encountering gusts and it also has made it considerably easier for the pilot to apply large accelerations. Fortunately the trend is towards greater wing loadings which also serves to reduce these gust accelerations.

The increase in speed is not entirely due to increases in horse-power in the power plant, but has been due, in some part, to the development of the cantilever wing. This in turn was made possible by the development of the thick airfoil sections. The monocoque or stressed skin type of metal cantilever wing construction followed naturally, as it yielded a more rigid construction, torsionally as well as laterally. As metal structures run into weight

STRESS

distress means and are more or less familiar with some of its sources.

Having fixed the definition of stress analysis in the reader's mind, we will now consider its application to airplane structures. In the good old days a complete stress analysis of an airplane could easily be accomplished in six hundred hours. Those were the days of the welded steel fuselage, spruce spars and fabric covering. External drag wires were just going out of fashion. Newell was deriving his well known three-moment equations and Niles was writing his first book. When one considers the present state of the art of airplane stress analysis and structural design, it is hard to believe that those good old days are actually but fifteen years ago. In those days gusts were things that frequently tipped over sail boats and an airplane was not afflicted with half a million rivets, though they generally did have a lot of struts and wires that kept the upper and lower wings apart and contributed generously to the parasite drag.

A stress analysis today may easily require eight thousand hours to prepare and as much more time may easily be spent in checking drawings to insure adequate structural strength. Among the causes of this increase in the hours of stress analysis are the marked increase in performance, changes in type of construction and increased knowledge of the loads on the airplane. In the good old days the airplanes did not fly fast enough to be endangered by gusts and whether or not the wings stayed on depended largely on

more easily than do wooden ones, a greater knowledge of the distribution of stress in thin structures is necessary, as well as improved knowledge of the amount and distribution of the external loads on the airplane. This results in more requirements for the stress analyst to follow in obtaining his design loads and in a very great many more hours of labor in determining allowables for stiffened thin sheet panels and in checking the strength of the many riveted connections.

Stress analysis consists in the processes or operations involved in calculating the loads or unit stresses in the structural members for various specified design loading conditions, the determination of the strength of the various members and the comparison of the strength with the critical design load to ascertain the margin of safety. The margin of safety, as used in airplane stress analysis, is the excess of strength of a member over the critical design load, expressed in percent of the critical design load. The critical design load is the load from the many design loads that are obtained from the various specified or design loading conditions which will result in the smallest margin of safety for the member in question. The general procedure followed by the stress analyst is divided into three phases as follows: First, a quick analysis is made based on the preliminary weight of the airplane and approximating the specified loading conditions. The second phase consists of contacting the drafting room as the design develops to insure adequate struc-

tures. The third phase is the preparation of a complete stress analysis made in conformance with the Service Specifications and with the latest weight distribution for submission to the procuring agency.

The loads in the structural members that interest the stress analyst are generally caused by air pressure in flight or by contact with the ground, in both cases being held in equilibrium by inertia loads of the airplane and its contents. In the case of seaplanes, of course, the "ground" loads may be due to water pressure on the hull or floats. As the airplane may be loaded in a great variety of ways and attitudes, either in flight or at rest, to reduce the time involved in the work to some reasonable value, it is necessary to pick extreme cases for analysis, so that in providing adequate strength for these extreme

full scale flight tests in which the air pressures on the surfaces are measured with respect to chord and spanwise distribution. These data are frequently translated into theory which one must admit results, in many cases, in profound and tedious calculations. The amount these loads must be increased to provide a safe margin or field of operation for the pilot are specified in terms of accelerations of gravity where $+2g$. for example, would represent the effect of an air load of such a character that the effective weight of an object in the airplane is doubled. The number of plus or minus "g's" specified for the design of an airplane structure depends upon the type of service for which the airplane is to be used, and, to some extent, upon the maximum speed and wing loading.



By ROY A. MILLER,
Chief of Structures

ANALYSIS...

cases, the airplane is safe in any intermediate attitude or condition. These stress analysis design conditions are specified by the Services, in the case of military aircraft, and by the Civil Aeronautics Authority in the case of commercial or civil aircraft.

In flight, air loads are caused on the wings and control surfaces by the mass of the air striking against them. These loads are increased or varied by changing the angle of attack of the surface with respect to the air through which it is passing. These changes in angle of attack may be due to maneuvers performed by the pilot or to gusts, waves or cross currents of air encountered by the airplane as it moves through the air. Voids or air pockets, frequently mentioned in the press or in stories, actually are downward acting air currents. To deduce the effect of these air forces the stress analyst depends on wind tunnel tests or in many cases on

Landing design requirements, whether the airplane lands on the ground or on water, are mostly dictated by experience and judgment, in that the landing gear, floats or hull bottom should be able to sustain a reasonably hard landing without failure. Landings causing damage, when made by the other fellow, are not "reasonably hard landings." The fine distinction implied by this last statement frequently contributes to the difficulties of the stress analyst. It is true that the design of the shock absorbing units on the landing gear is arrived at by more or less intricate mathematics, but it all refers back to a height of drop which is fixed by someone's judgment in the matter.

Many studies of the distribution of water loads on hull or float bottoms have been made in recent years, of which one conducted in England was unusually interesting. In this case a seaplane approximating the PBY-5 in size and gross weight

was drop-tested in water from various heights up to a drop of about eighteen feet. Data were obtained through the use of accelerometers, and pressure measuring diaphragms inserted in the bottom plate. These data were correlated with moving pictures and when plotted were very interesting indeed. However, since these are almost infinite possibilities of water pressure distribution depending upon the condition of the water and the skill of the pilot, water design loadings are rather arbitrarily fixed in light of previous experience and the judgment of the writer of the specification.

Airplanes are also subjected to vibration, flutter and fatigue loads. Vibration is familiar to all of us in some way or other, and seldom could result in serious failures. But it decidedly has a great nuisance value when it occurs and may contribute greatly to the troubles of the stress analyst. Fatigue, of course, is due to a very great many repetitions of the loads in a member and would not cause trouble until after a considerable period of service. Flutter, however, is a very serious matter and is a possibility in any airplane, if the airplane

(Continued on page 85)



"In those days . . . an airplane was not afflicted with a half a million rivets . . ." (pictured are views taken in 1925 when Consolidated was producing airplanes at Buffalo, New York). ". . . though they generally did have a lot of struts and wires that kept the upper and lower wings apart and contributed generously to the parasite drag."



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Left to right: *Standing*, Edna Willwerth, Beatrice E. Jackson, Jean Henley, Lucille E. Fisher, Alberta Ludwig, Evelyn Parkins, Jane C. Morse, Elizabeth Kirkpatrick, Lorine C. Mounce, Helene Marie Moxness, Mary Jane Upton, Grace A. Hamill, Ruth Kennedy, Evelyn Mullen, Norma Buell, Lois Propps, Glada Wright, Hazel Brink Robertson, Maxine Bennett, Brendan Fottrell, Vera Smith, Gladys Crawford, Vera Lockwood, Alice Vincent, Grace Seybert, Jane Dunn, Grayce Holm Fath, Irma Robbins, Mary Eleanor Meredith, Lela Johnson, Evelyn Kells, Genevieve Rhoda, Sigrid Dodgson, Florence E. Cannon and Estelle

Smith. *Kneeling*, Arvella Dickey, Avis Clarke, Rosa K. Wilson, Florence Kligman, Helen Silcox, Yvonne Fuller, Rose Asaro, Eleanor Reid, Sarah J. Givens, Beverly Kipple, Veronica Paschen, Juanita Smith, Edith Eckenrode, Martha L. Coons, Louise Girodon, Kathleen Schneider, Bertha E. Peel, Frances Terpening, and Grace Swearingen. *Front row*, Iris Armistead, Virginia Garland, Alice Spies, Alice Birse, Betty Melcher, Ruth Sears, Grace Koenig, Lois Campbell, Saladea Lehman, Thelma Patterson, Eileen Currier, Cedelia R. Ashley, Norma Haugard, Virginia Johnston and Gladys Roy.

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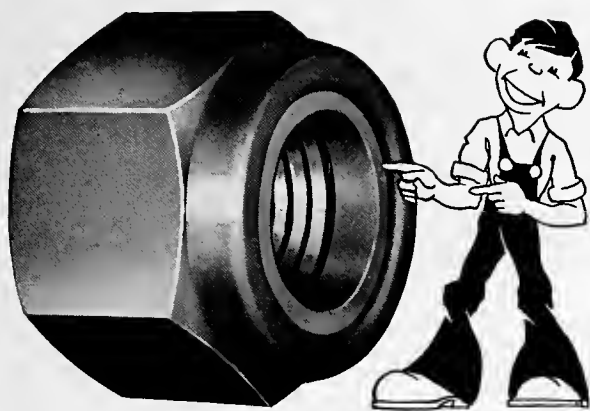
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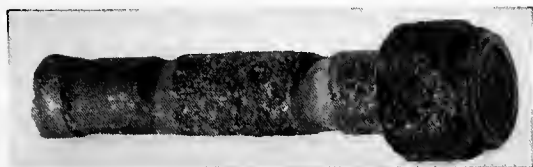


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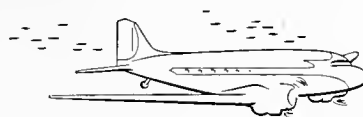
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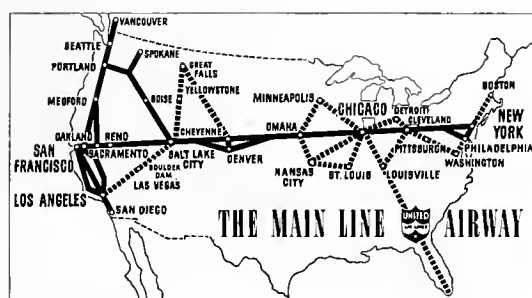
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SEAPLANES AND NATIONAL DEFENSE

(Continued from page 13)

is establishing throughout the Atlantic and Pacific will offer opportunity to place high performance, long range aircraft in vital locations where they may strike an enemy which may become established and become a threat to our safety. The Philippine and Caribbean Islands are outstanding examples of such vital locations.

High performance flying boats based in the Philippines would make a vast difference in our prestige in the Far East and go a long way to reinforce our traditional policy of the open door to China. If necessary, thousands of water type aircraft could be stationed there. Their overhaul shops, warehouses and other necessary buildings could be so separated that it would be practically impossible to bomb them out. Bombardment of the islands would in itself be futile since they are largely agricultural. The hitting power of such equipment so located could not help but effect the strongest influence and restraint on the dominant military powers of the Far East. Since the Philippines are practically fog free there is little opportunity for an enemy to obtain a foothold ashore without detection. In any event he would be unlikely to risk his navy or his troop and supply ships in any expedition against such formidable strength so spread out in the islands that there would be no focal points to attack and yet so mobile that in the space of a few hours overwhelming masses of aircraft could be brought together to oppose him. The Caribbean Islands are also fog free and offer similar advantages for our protection against forces that might become established in South or Central America and for the defense of the Panama Canal.

South Atlantic trade winds of high velocity, which blow for months on end, from east to west favor air operations from Europe via Africa against South America. Heavily laden planes riding the trade winds need less fuel for the 1,800 mile flight and can consequently carry much heavier military loads. As a matter of fact,

our PBY type flying boat, Dick Archbold's "Guba", flew from Dakar, Africa, to St. Thomas, Virgin Islands, approximately 3,300 miles in 19½ hours, arriving with sufficient fuel remaining to fly an additional 1,800 miles; or a total of 5,100 miles against an all out range in still air of 4,000 miles; a 25 per cent increase; which converted into military load by reduction of fuel would mean an increase in payload of bombs, ammunition or supplies of approximately 2,300 pounds, flying 4,000 miles under above conditions, or 3,700 pounds flying 3,300 miles. On larger planes the increase would be greater.

The present program of acquisition by our country of outlying bases throughout the Atlantic and Pacific, would indicate a program which contemplates quantities of long range, high performance aircraft. It seems to be generally accepted that strong forces of aircraft stationed as close as possible to the vital centers of the potential opposing power where they can strike quickly and effectively offer the best opportunity to avoid war. Our new bases appear to be strategically located for this purpose. It would seem then, that this least vulnerable type of equipment is most necessary for our fighting forces.



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AIRCRAFT TOOLING

(Continued from page 18)

plify, the construction of aircraft. The use of such a punch insures an interchangeability of parts which in turn eliminates many assembly fixture parts and increases production. Instead of drilling the holes separately in each extruded or drawn stringer at assembly, this punch enables us to make all holes to match mating parts, at one stroke. Flat strips of thin stock may also be punched on this machine.

Where single plane curvature in sheets is desired, rolls provide the solution, and with progressively heavier sheet being employed for skin coverings, large rolls must be used. Uniform curvature in a sheet up to 20 feet of $\frac{1}{4}$ inch dural can be accomplished. The rolls, called brake-rolls, can be adjusted or braked to roll taper or varying radii curves at will, which gives considerable latitude for operations, and finished product.

The use of hydraulic presses, pneumatic drop hammers and Hydron hammers, while providing no panacea for tooling problems resulting from streamlining, has simplified many construction features tremendously and eliminated much of the hand labor involved in forming curved parts where two-way, or compound curvature, is involved. Savings have been made with these parts in quantities as low as thirty pieces. Of this group of tools, the Hydron, developed in our shop, is the most sensitive, yet it is capable of striking the harder blow . . . to 1000 pounds per square inch. Actually the Hydron is a cross between a hydraulic press and drop hammer, with many of the advantages of both.

All tooling constructed from wood and/or dural is laid out and shaped in the Wood Pattern Shop. Additional detail parts of steel or iron are added where necessary by the Tool Room.

The fabrication and finishing of all scale models including wind tunnel models is done in a separate Model Shop directly under the supervision of the Wood Shop Foreman.

One recent development is the use of scrap duralumin for the making of the thousands of tools necessary in the construction of a single model. This not only alleviates the problem of what to do with the scrap metal, but also produces tools that are not affected by atmospheric or temperature changes . . . any tool or fixture constructed of this scrap expands or contracts in the same ratio as the parent work, thus always being in alignment with it. This dural allows sawing, filing and shaping of a metal as rigid as steel, and is nearly as easily worked as wood; with a lighter than steel and far less costly tool as the result.

Scrap dural is collected at the plant and sent to a local foundry to be cast into three foot by six foot "standard" blocks of varying thicknesses to as heavy as six inches, and into 30-inch angle, channel, and "H" section of "standard" tool sizes. When returned from the foundry, the plates are planed true. Form blocks, assembly fixtures, machine tool fixtures, drill jigs, etc., are then made from this otherwise scrap material.

The big fixtures branch of the Tool Department is fundamentally a function of the Tool Room proper and a great percentage of its work is done in the Tool Room. It is supervised by a single Foreman in charge of various Group Leaders whose individual projects are distributed over the entire plant. The Tools constructed by this activity are those which have to do with the assembly and transportation of large units such as Wing and Tail Surfaces, Hulls, Fuselages, and Sections thereof. That portion of this work which cannot be carried on in the Tool Room applies to tools which are of the frame structure type and must be set up and aligned in whatever shop department they are to be used. Large assembly bucks are fastened to the floor and provided with adjustments and devices to permit re-alignment whenever necessary.

For greater flexibility in large assembly fixture work, a method of standard pipe construction has been developed to include the use of cast jig fittings or couplings designed for this purpose. This method replaces the conventional welded structure in the majority of big fixture structures. Some welded constructions are still used, but the advantages gained through the use of standard pipe and jig fittings are nearly 100 per cent salvage when dismantled, and a re-fabrication cost of about 50 per cent of the cost of welded construction.

Because of the intense public attention that has been focused upon the Air-

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craft Industry at this time, the public has become aware of the fact that to produce planes involves a tooling problem. But it should be pointed out that this tooling problem has existed right along with the previous growth of the industry, and that it has been dealt with by engineers and specialized mechanics within the industry. The adoption of "mass production" methods, an easy and high sounding solution, is not yet quite so simple as it sounds when confronted with some of the existing problems of aircraft manufacture.

The problems of aircraft tooling were well known and appreciated by the industry before being brought to the attention of the reading public. Such detailed problems as it now involves will be solved by the Yankee ingenuity of the machine tool builders in collaboration with the industry's own designers and tool builders.

Co-operation is the first essential for the solution of any design problem regardless of its size, and probably in no other industry is the co-operation between all phases of production, between factory workman, tool designers, tool builders, engineers and production control, as close and wholehearted, as it is today.



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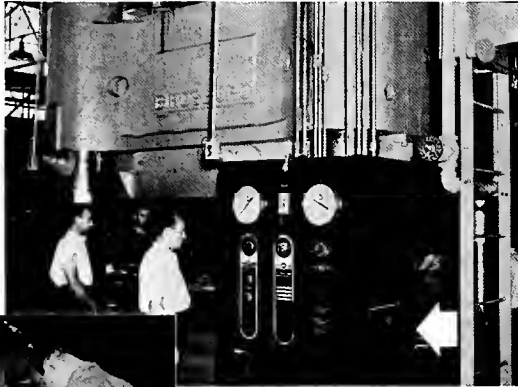


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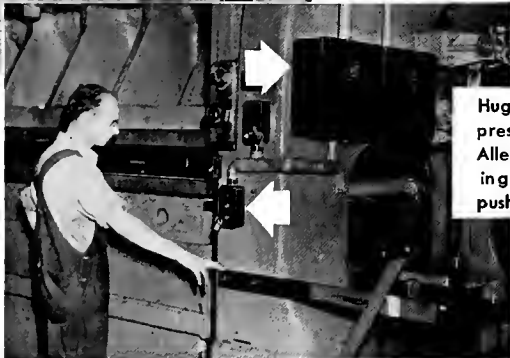
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CURRENT DESIGNS

(Continued from page 41)

is used for a given job. An airplane designed five years ago to have the range and load carrying ability of the B-24 would have been at least fifty percent larger with commensurate decrease in high speed.

While we have considered commercial versions of the B-24, the present fuselage capacity is too small for an economically practical short range transport. However, on some routes where relatively few passengers are to be carried long distances non-stop at great speed, the B-24 shows up most favorably as compared to existing and projected four-engine transports. We have recently had inquiries along this line.

The B-24 production has followed closely on the heels of the experimental model and were it not for numerous changes

found necessary as a result of lessons learned in actual combat in Europe, the B-24 production deliveries would now be well under way. Digressing a little, these changes are grouped under the heading of "modernization" which, at first glance, would appear to be a misnomer when applied to a type less than two years old. However, it is not a misnomer; it merely reflects the rapidly changing aviation technique. With military and tactical requirements in a constant state of flux our immediate concern is to make our airplanes of maximum military utility without undue delay in delivery. This requires flexibility in our engineering and quantity production organization. The large automobile manufacturing plants which are reputed in the newspapers to be capable of producing a thousand planes per day lack this flexibility and as long as aircraft design and usage change so rapidly, the thousand

per day deliveries will continue to remain a myth. Reports from Europe indicate that quality is fully as important as quantity and, of course, we should have both but not one at the expense of the other.

In closing, regret that the need for secrecy on military types prevents our describing the new and interesting projects which we are undertaking. We can state that experience will be gained with pressurized passenger compartments, high altitude performance problems and many other features which will be directly applicable to the *Consolidated Commercial Transport* of the future. We wish to assure our fellow *Consolidators* that development work is not being stopped as a result of the heavy production demands and we will do our best to maintain the leadership which we now hold in our chosen field.

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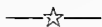
(Continued from page 24)

prises such a large and important part of the work, considerably more training in practical design and drafting should be

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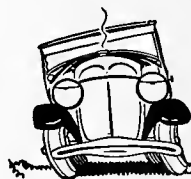
given. Engineering students should be informed of this fact and endeavor to obtain as much training in this phase of the work as is possible, for it is in the design end that the cost and producibility of the airplane is really determined. While certain economies in production can be effected after the experimental airplane is put into production, if the basic design is not simple and something which can be constructed without excessive labor, there is not a great deal which can be done about it later. It is the responsibility of the design engineer to see that the design is such that it can be produced quickly and at a reasonable cost.

The idea of giving more training in detail design and drafting has been discussed with a number of college professors and it appears that the main reason why this subject is not taught in universities is that instructors in aeronautical courses do not have adequate training in this field. Because of the continual progress being made in this field it is still a comparatively new science which, of course, can best be acquired by actual experience in an aircraft engineering department and not something which can be obtained from text books. The writer does not know of a single good text book on the subject which might be used in classroom work by a teacher unfamiliar with this work. Because of this, students have not been sufficiently impressed with the importance of design and drafting in the aircraft industry. Usually young engineers are placed in a drafting group and as they show progress they are given the chance to design small parts, etc. Generally their progress depends on their adaptability to the work and their ability thereon. Because most recent engineering graduates have been hired, is not a sign that they were properly trained but rather because they were the best prospects available. It is hoped that attention will be focused on the two particular problems presented and that:

Sufficient interest may be aroused in Government procurement agencies to bring about modification of existing requirements to the end that the development and production of aircraft may be expedited.

Also, that universities will give consideration to providing courses in design and drafting in their curricula so that the students will be equipped with additional information which will be more useful to the company employing them after completion of their college training.

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THE GUBA'S FLIGHT . . .

(Continued from page 26)

after leaving San Diego, which, at that time, was considered something of a record.

We left for Wake Island on June 6th, having to climb to around 17,000 feet towards the end of our journey in order to get over thunderstorms. We glided into

Wake at 9:30 o'clock on the morning of June 8th, having added a day to our time by passing over the international date line.

The following afternoon we set off again—this time for Hollandia through unflown skies. The weather reports were meager for the first part of the flight. For the last half we had to rely on what our station at Hollandia could give us as

to conditions on the coast. We dodged a number of thunderstorms and picked up some ice and a little snow as we crossed the equator. But even so, we sighted the New Guinea coast earlier than we expected. We flew up and down the coast until daybreak. Shortly after sunrise on June 10th, we came down on Humboldt Bay.

Awaiting our arrival in Hollandia were Dr. A. L. Rand, ornithologist; L. J. Brass, botanist; William B. Richardson, mammalogist; Harold G. Ramm, base radio operator; an advance detachment of one lieutenant and about six soldiers sent out by the Netherlands authorities to receive and organize military stores. When the expedition personnel was complete, our party numbered nearly 200 men which included two Netherlands scientists, a detachment of Netherlands Indies soldiers under the command of Capt. C. G. J. Teerink, who were to protect us while in the interior, and Bornean Dyak native carriers. The Guba was constantly used to transport food, supplies, camping equipment, and on occasions, personnel, from Hollandia to the various inland collecting camps until we had completed our work in the areas chosen for study.

The Guba contributed greatly to the success of the expedition. It enabled us to do in ten minutes, work which could not have been done in two years had we used the available means of land transportation. She made 168 flights in and around New Guinea from June 15, 1938 to May 10, 1939. When we left for home, we brought back the most complete collection of biological specimens ever taken from that island. We discovered a "new" tribe estimated to number about 60,000 natives in a hitherto unexplored valley of the Balim River.

In addition to the inland flights, during which we used unmapped rivers and lakes in the vicinity of Mt. Wilhelmina for landing, we made one trip to Makassar

(Continued on page 77)



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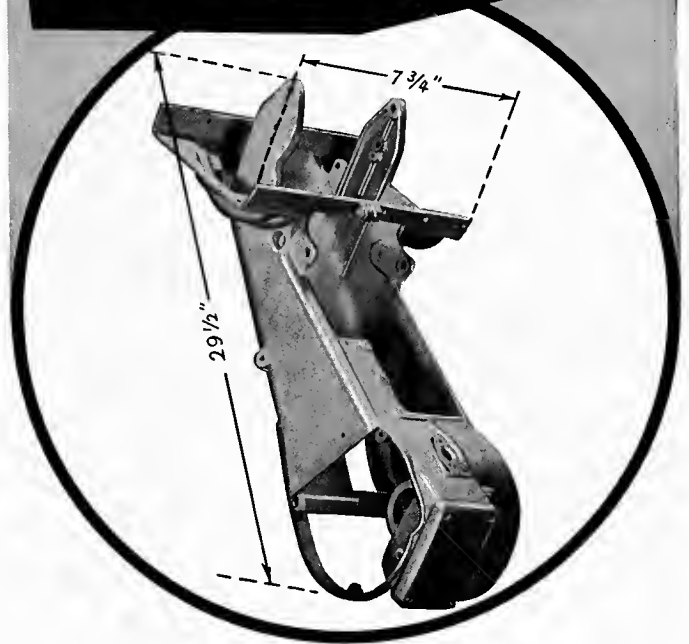
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| finish, @ \$1.50 per hr. | 120.00 | | |
| Total..... | \$128.72 | Total..... | \$15.25 |

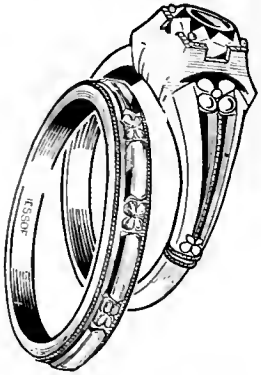
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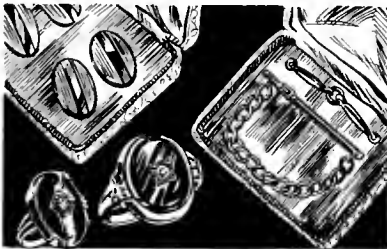
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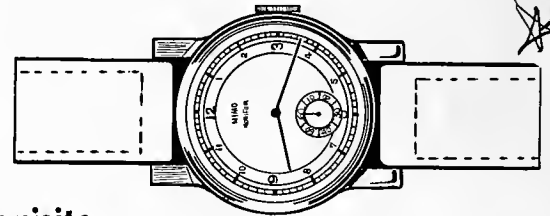


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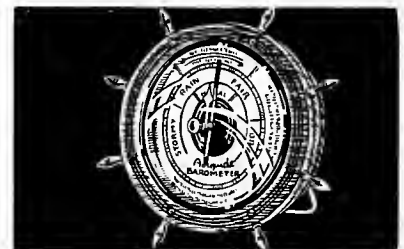
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THE GUBA'S FLIGHT . . .

(Continued from page 74)

on the island of Celebes, and another to Sydney and Melbourne, Australia, for supplies. It was during the latter trip that our route home was decided upon.

The governments of the Commonwealth of Australia and Great Britain were interested in surveying an aerial route across the Indian Ocean which had never been flown before. It was believed the proposed route—from Port Hedland, on the west coast of Australia, to Mombasa Africa, by way of the Cocos, Chagos and Seychelles Islands—would provide a valuable alternative to the existing England-Australia route by way of Singapore and Java should war break out. We were approached on whether the Guba would be available for the survey and we agreed to do it on our way home.

Upon our return to Hollandia, the engines we had shipped from San Diego were installed in the Guba. The expedition program was finally completed. The inland parties were brought back to the coast. We were ready for the long flight home. We left Hollandia on May 12, 1939 and flew, by way of Port Moresby and Townsville, to Sydney where final details of the Indian Ocean flight were worked out. The work was to include the sounding of coral lagoons in the island to determine their suitability for flying boat use, the compilation of information covering tidal movements, winds and currents, and general meteorological and radio information likely to be of value in the establishment and maintenance of air bases. Captain P. G. Taylor, associate of the late Sir Charles Kingsford Smith, was appointed by the Commonwealth Government to take charge of the survey.

On June 3rd we left Sydney and flew non-stop across Australia to Port Hedland, the jumping-off point of the survey flight. Because of thick weather, we missed Cocos I. the first time and decided to come down in Batavia instead. A fresh start was made on June 7th and six hours later we landed at Direction Island. Six

days after that, we were off to Diego Garcia in the Chagos Archipelago, the longest stage of the flight. We left Diego Garcia on June 16th and covered the 840-mile journey to Mahe in the Seychelles in seven hours.

The final stage of the survey flight to
(Continued on page 79)

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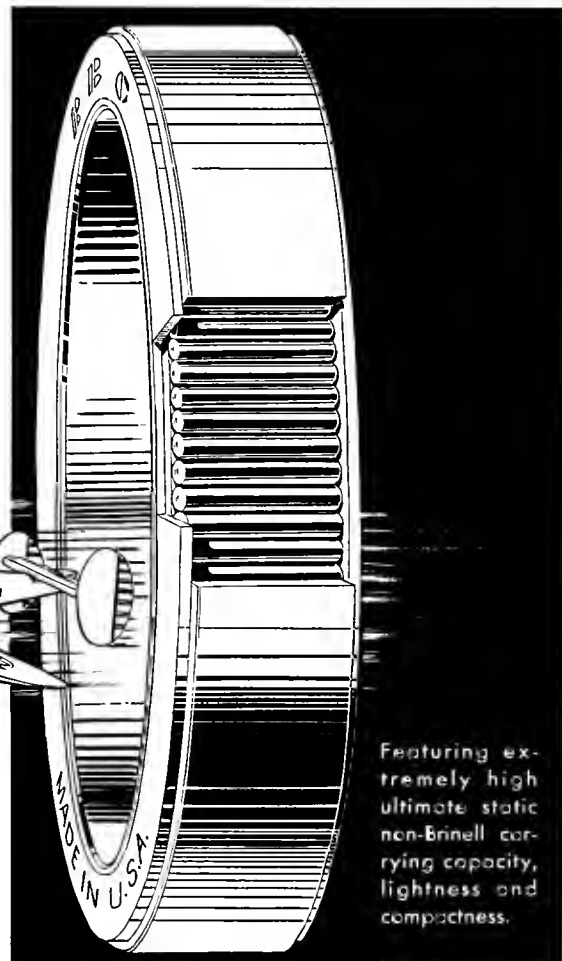
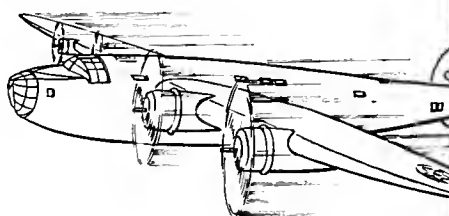
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THE GUBA'S FLIGHT . . .

(Continued from page 77)

Mombasa was completed on June 21st in a seven hour hop. Our arrival created considerable interest throughout the East African territories.

Ahead of us lay the crossing of Africa and the Atlantic Ocean. The day after our arrival in Mombasa we set our course to Kisumu on Lake Victoria. We flew on to Dakar by way of Coquilhatville on the Congo and Lagos in Nigeria, arriving June 26th.

Three days later the Guba was off on the long grind across the Atlantic. We put in at St. Thomas early in the morning of June 30th according to schedule. We made 2745 nautical miles (3190 statute miles) in 19 hours and 33 minutes.

The next afternoon we came down at Floyd Bennett Field. We were rushed to the Aviation Building of the World's Fair and given a very kind "official" welcome home. On July 6, 1939, the Guba settled on San Diego Bay after thirteen months of flying.

The British Purchasing Commission has bought the Guba. Conscribed into the war service, we heartily wish her and her present crew the very best of luck indeed.

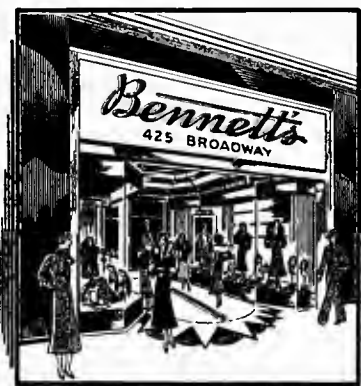


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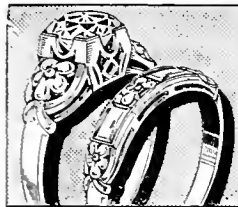
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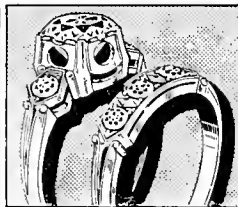
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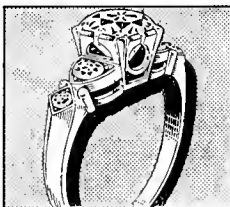
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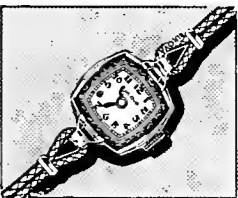
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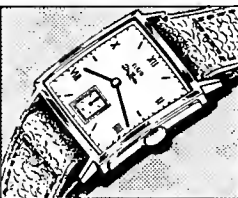
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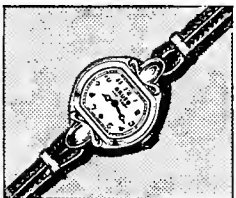
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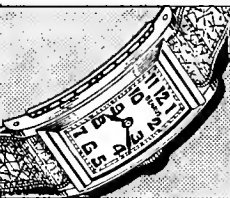
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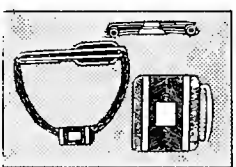
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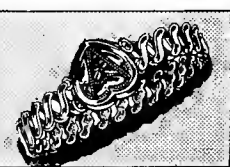
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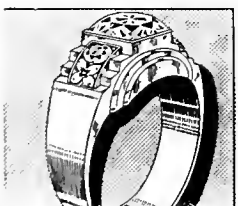
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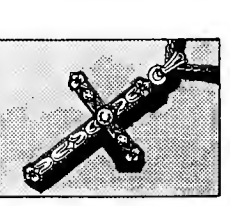
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STILL ON THE EXPORT BEAM

(Continued from page 55)

The aeronautical manufacturer who lacks the vision to recognize and take well into account the future of export trade as an essential to the perpetuation of what has become our key defense industry, may be likened to the old-time pilot who "flew by the seat of his britches"—the going is fine as long as the landmarks guide him on his way, but when he has to navigate through the fog bank, which is the transition from war-time to peace-time business, he will either have to set his ship down—fold up his business—or risk the almost inevitable crash of flying blind. Those who will most assuredly ride out the storm are the manufacturers "still on the export beam"—flying instrument, who today have the vision and what little courage it requires to design, build and push forward with export to the extent that the demands of the national emergency permit. The aircraft industry has heroically heeded the call to meet today's defense needs, but the greater patriotism is shown by those producers who, while meeting the present emergency, are looking ahead and providing for that export facility whereby the base of this Industry will be so infinitely broadened that it will successfully withstand the shock of the post-war adjustment.

It seems our friend Red Hammond would give the following advice to all young lovers seeking privacy, "You will never gain it even in a sail boat in the Bay. How do I know? I tried it with no success."

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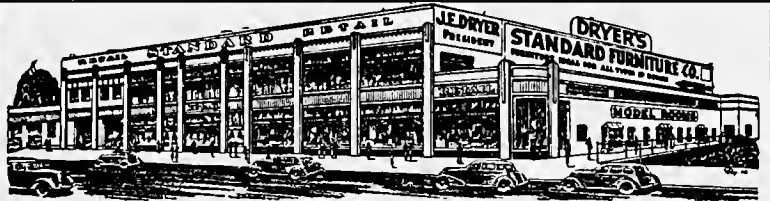
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IN the history of modern industry perhaps no manufacturing field has been called upon so frequently to change its manufacturing methods as has the aircraft industry. This constant derangement has been occasioned by continuous advances in design, necessitating the use of new materials and techniques; and by the ever-increasing complexity of aircraft. In fields other than airplane manufacture

in an aircraft factory is responsible for the scheduling of production, availability of tools, availability of parts and materials, transportation of parts and materials between manufacturing departments and the control of time lags in production. Close coordination of effort on the part of Engineering, Tool Design, Purchasing, Inspection and all manufacturing departments is necessary. The coordination of



PRODUCTION CONTROL

it would seem that ours are somewhat chaotic methods. Our continuously obsolescing product, embodying many thousands of parts, adds twofold to the complexity of the problem. The rapidity with which changes take place calls for unceasing vigilance, ingenuity and foresight in order to achieve a product satisfactory to the customer from the maintenance standpoint, along with constantly improved performance characteristics and requirements. The national defense program has placed major emphasis on enlarging the nation's air forces and public attention is focused on the perfection of the airplanes we build.

The manufacturer, having obtained a contract for the delivery of a specified number of aircraft by a specific date, is immediately confronted with the problem of adjusting the date on which he has agreed to deliver the aircraft with the capacity of his plant. All departments function toward that goal—the delivery date. The production control department

the activities of these groups is a responsibility lodged with production control.

Exact requirements for all parts to be manufactured are almost never known at the start of a production program and it is necessary to base all schedule dates on general priority in respect to assembly position. This means that certain limiting factors of capacity have to be estimated. This lack of exact information tends after production is under way, to create bottlenecks in various manufacturing departments. Producing the required quantity of product, of the required quality, at the required time, does not permit of hold-ups in production. Two divisions, Planning and Dispatching, function in the accomplishment of this responsibility. Planning specifies what is to be accomplished together with instructions as to how and when accomplishment is desired. Dispatching comprises the follow-up system necessary to insure that the program devised by Planning is actually carried out. Incidental to these two major func-

By R. G. MAYER,
Production Manager

tions the department also operates transportation and storage facilities for parts and tools in process. This, because a reservoir of finished or semi-finished parts is a practical necessity to take up irregularities in the flow of work through the manufacturing departments. It insures general compliance with the master schedules, which give the dates by which the shop departments must complete details, subassemblies and assemblies; in order to meet the airplane delivery dates. The preparation of these schedules requires complete familiarity with the type of airplane and a thorough knowledge of manufacturing methods. When the schedule has been completed by the production control department, it must be checked over with various heads of departments to be sure that it can be adhered to in the manufacture of the airplane. Any impossible conditions set up must be cor-

(Continued on page 86)

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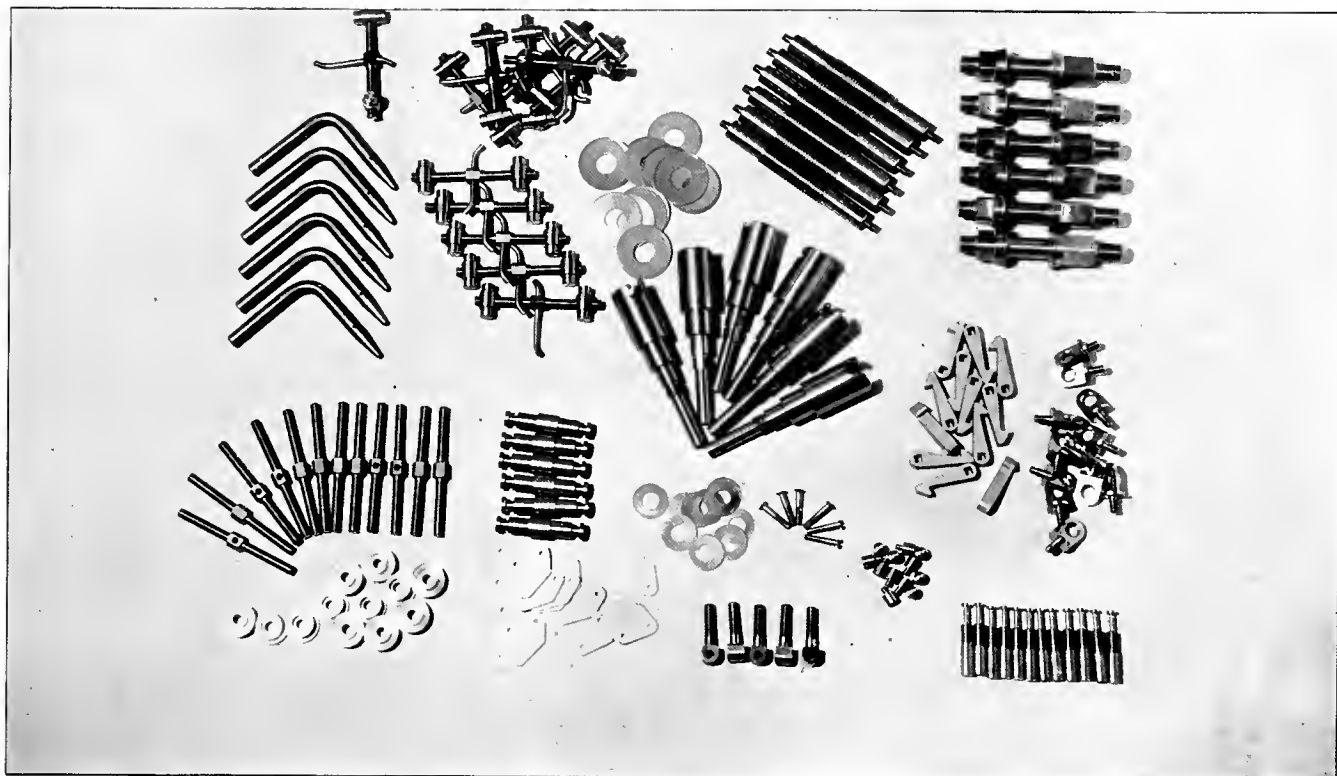
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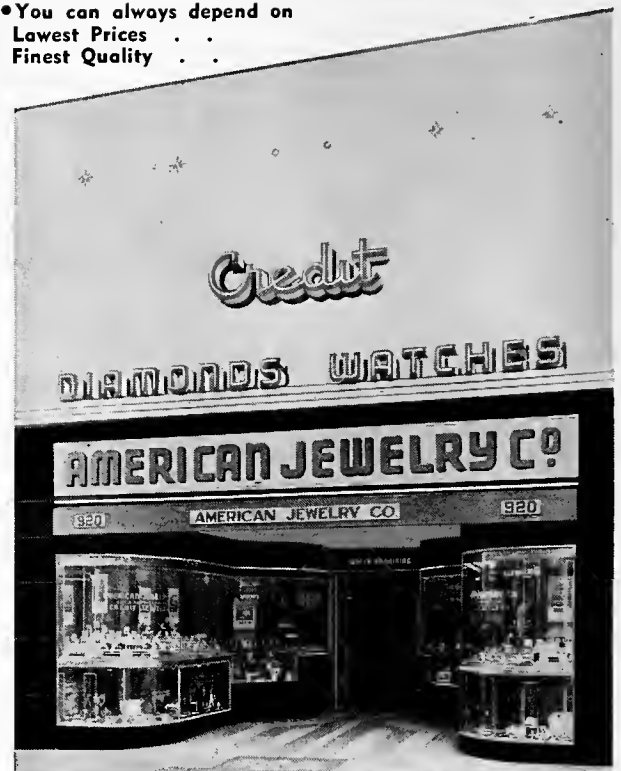
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STRESS ANALYSIS

(Continued from page 63)

can be made to fly fast enough. We do not attempt to design to resist the stresses due to flutter, but make certain that the theoretical flutter speed is well outside the flight range of the airplane.

The allowable strength of the various structural members in an airplane is determined by the use of a great variety of charts and formulas and with much waving of slide rules. A slide rule, incidentally is sometimes defined as a device with which one can readily multiply or divide numbers so that one might discover, for example, that two times three is not six but rather 5.99. Regardless of the theory involved in the design or the degree of complexity involved in the design procedure, it all refers back to the testing of the materials or of similar

members. We build and test specimens, plot points, draw curves through them and evolve design procedures. There must be considerable merit to the system because though airplanes are built bigger

(Concluded on page 89)

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All types of fire extinguishers

PRODUCTION CONTROL

(Continued from page 82)

rected before the schedule is adopted. The planning division with its blueprint, bill-of-material, material shortage and shop order sections, the dispatching division cooperating with shop foremen in expediting work through the plant and the finished parts storage division with its facilities for disseminating assemblies and parts as they are required, is the main-spring of the clocklike operation of our plant. Production control comprises planning, routing, scheduling, dispatching, transporting, storing and issuing functions so organized that movements of material, performance of machines and operations of labor, however subdivided, are controlled and coordinated as to quantity, time, and place.

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APPROXIMATE RANGE OF AN AIRCRAFT

By W. A. McGowan

IT IS often desirable to make a reasonable guess as to the maximum range of an airplane. If the total fuel capacity of the airplane is known, together with the total horsepower of the engines, the first step is to find how long the airplane can remain aloft, and then to multiply this number of hours by the average speed of the airplane.

For ordinary cruising the pilot usually operates the engines so that the engines are producing between 60% and 75% of their normal rated horsepower. The amount of gasoline used per brake horsepower hour is somewhere in the neighborhood of one-half pound. One gallon of gasoline weighs six pounds. So the number of gallons of gasoline used per hour is

$$\text{Gallons of gasoline used} = \frac{\text{B.H.P. (used)} \times .5}{6}$$

As said before, the b.h.p. used is between 60% and 75% of the total normal rated power. Having computed the gasoline consumption in gallons per hour, the duration of the flight is readily ascertained. This number of hours times the average speed gives the range.

Assume a transport airplane with two 1000-hp. engines carries 1000 gallons of gas. Normal cruising speed at 60% power is 150 m.p.h. At this speed, how far can it fly in still air?

$$\text{H.p. used} = .6 \times 2 \times 1000 = 1200 \text{ h.p.}$$

$$\text{Fuel consumed per hour} = .5 \times 1200 = 600 \text{ lbs.}$$

$$\text{Fuel consumed per hour} = \frac{600}{6} = 100 \text{ gallons.}$$

$$\text{Time aloft} = \frac{1000}{100} = 10 \text{ hours.}$$

$$\text{Range in still air} = 10 \times 150 = 1500 \text{ miles.}$$

The above simple calculation can be done mentally. The results obtained are certainly much more accurate than any figure arrived at by guesswork.

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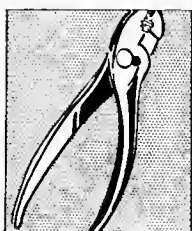
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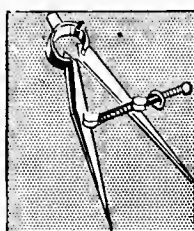
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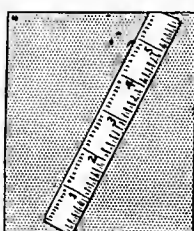
KLENKE SNIPS — Cuts intricate designs on stainless Dural and Monel metal. Far right or left hand. **2.75**



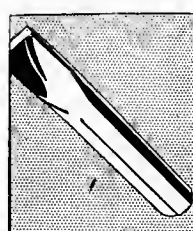
DUNLAP PLIERS — Drop forged alloy steel, nickel plated finish, milled jaws. 6-in. Others 12c to 1.89. **39c**



4-INCH DIVIDERS — Tempered crucible steel legs, accurately machined. Others as low as 19c. **75c**



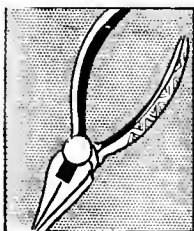
6-INCH RULE — Craftsman machinists' rule, flexible and clearly marked. Other styles, sizes to 1.39. **75c**



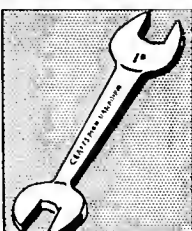
COLD CHISEL — Vanadium steel, chrome plated. Hard, tough non-chipping. Holds edge, 1/4 or 3/8-inch size. Others 15c to 65c. **25c**



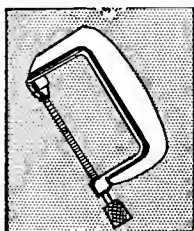
6-IN. PLIERS — Dunlap diagonal cutting pliers, forged alloy steel, blued handles, tough cutting blades. Others 25c to 1.69. **79c**



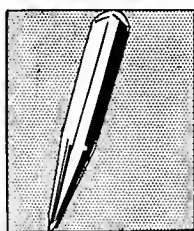
6-IN. PLIERS — Chain nose style, vanadium steel polished finish, knurled handles. Others priced as low as 25c. **1.49**



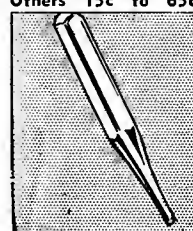
WRENCH — Craftsman an open end wrench. 1/4x5/16-in. 25c; 15/16x1, 75c; 3/8x7/16-inch. **29c**



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STRESS ANALYSIS

(Continued from page 85)

and fly faster, the wings stay on and the structures hold together.

Weight plays a big part in a stress analyst's life because if the structure he designs has not a good strength-weight ratio, over-weight creeps in and presumably performance is impaired. An airplane in its development is somewhat like Man, if its diet or something or other isn't watched, it runs to overweight, for which the stress analyst invariably is found guilty. All of which, one must admit, has somewhat the aspect of the tail wagging the dog, when it is remembered that probably less than 25 percent of the weight of the average airplane can be affected by any assumptions the stress analyst may make.

Assumptions are really the backbone of a stress analyst's work. It is frequently forgotten, but the most intricate or profound stress theory or procedure stems back to assumptions; and no matter how precise the mathematics involved, the answer is no better than the assumptions made at the beginning. All too frequently we have answers obtained as a result of weeks of tedious calculations which are presumed to be correct because of the intricate formulas used, which formulas are actually not applicable because the

assumptions made in developing the procedure do not apply to the problem at hand. And don't always blame the stress analyst for this condition because, rather than work five weeks to obtain a design loading of 36.18 lbs. per sq. ft. on the rudder, for example, he would much rather work a half day to obtain a loading of 40 lbs. per sq. ft. It is not thought that the airplane would know the difference.

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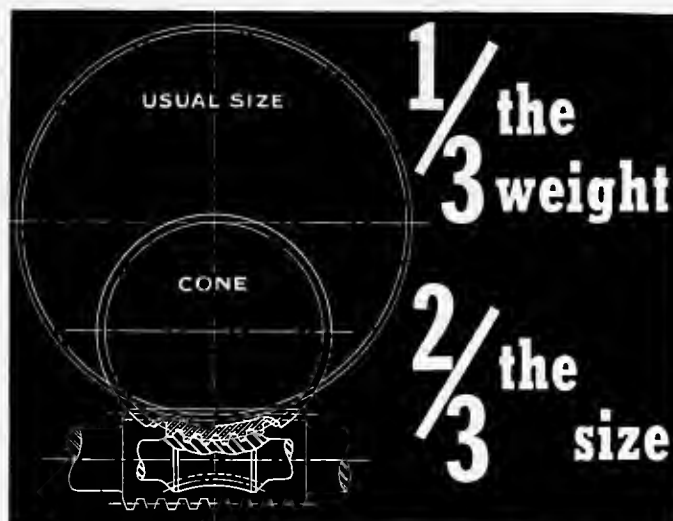
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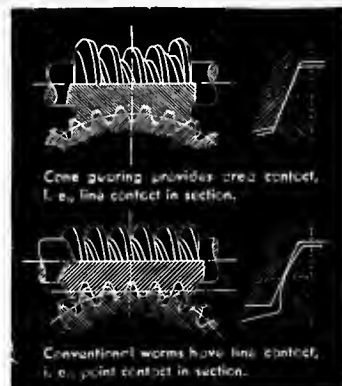
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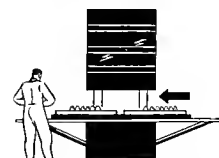
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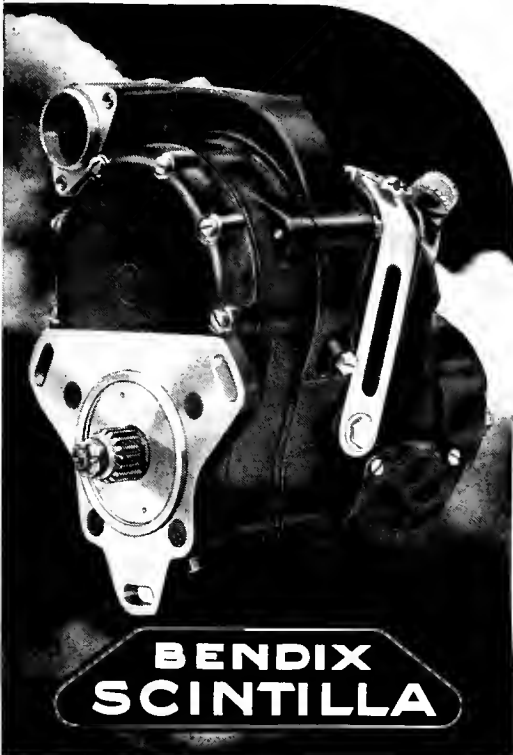


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**PURCHASING**

(Continued from page 35)

ing to domestic shipment from our plant are operated from this same department. The shipping department, as well as others which have already been mentioned, all operate under the jurisdiction of the Material Supervisor and the policy of placing the responsibility with this department for all material from its release by Engineering to its delivery in a finished product continues to be a very satisfactory arrangement.

The Material Supervisor also has jurisdiction over matters of exportation in connection with the shipment of materials, parts, or airplanes to many foreign destinations. All the necessary arrangements are made through the Traffic Department, operating under the Material Supervisor, to prepare the necessary negotiable documents which are turned over to the Treasury Department to obtain collection on the materials, parts or airplanes shipped. Matters of import, Customs regulations, drawback procedure (obtaining refunds from the U. S. Treasury Department on duties paid on imported materials) are also handled by this department.

The rejection of material or parts re-
 (Concluded on page 97)

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MACAULAY'S GLEAM

(Continued from page 57)

Mr. Ryan, as we in the Harbor offices do, we are playing safe by covering all bets.

With no regard for the slackening of pace which comes with maturity, both the field and its plants carry on their robust activity, shot through with the vitamin B1 of today—National Defense.

I cannot think of closing without a word about the skirted members of Consolidated's aircraft plant. Some of this feminine contingent, who came by modern covered wagon from Buffalo, particularly a certain brunette and red head, have spent the best part of their San Diego lives adjusting themselves to the intricate traffic regulations of this metropolis as compared with the "hick" situation in the east. They have suffered, as only martyrs can, with the problems of signals, right and left hand turns, and the long arm of southern California law. However, the years have perhaps mellowed the sting of their early sufferings, and recent reports show that they have joined the throng of those who explain away our "unusual" climate, our "mild" earthquakes, and our high fogs, with the zeal of the native born. For this and their assistance in a thousand ways, I want to say "thanks" and Merry Christmas.

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PURCHASING

(Continued from page 92)

ceived because it does not comply with the specification is also handled through the purchasing office. This seems to be the logical place for this activity since it is important that the buyers be informed of the quality of materials which they purchase. The majority of rejections are handled by one individual, however, each is coordinated with the respective buyer. In this respect it is necessary that the purchasing office work very closely with the inspection department which functions under the jurisdiction of the Works Manager. Coordination of inspection activity on purchased items with the purchasing office eliminates unwarranted rejections against vendors.

While much more could be said regarding the mechanics of buying and handling materials, it is the intention of the article to give a concise picture of the operation of an aircraft material organization. A relatively small number of employees handling millions of dollars worth of parts and materials annually indicates that this type of organization is efficient. A survey of a number of industrial plants operating in the country was recently made, and it was concluded that a system such as that now in operation at *Consolidated* best served such an industry. That this organization of material procurement and handling of material is a sound structure for aircraft manufacturing has been indicated by the fact that several other aircraft companies have adopted this system of material supervision in the past few years.

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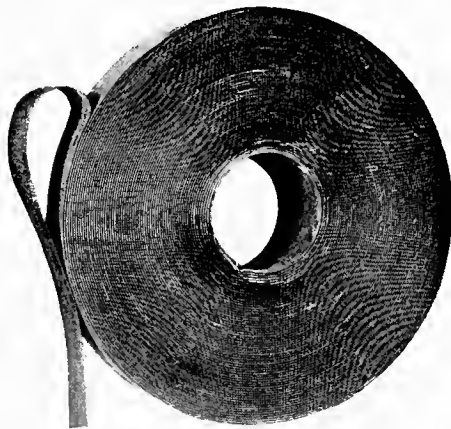
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A Woman's Views on Aviation

(Continued from page 29)

income from flying. I have my own cosmetics business and do most of my flying in that connection. It, therefore, pays me indirectly. I don't believe in women trying to break in on the jobs men have or are making for themselves in the flying business. By this, I mark myself as no feminist. Furthermore, I think the routine flying of the big transports is a man's job. In making the statement I don't means to infer that women can't fly as well as men. In every kind of flying that depends on touch and brain, rather than brawn, I believe women are the equal of men. Naturally, I'm speaking in terms of averages.

But in times of emergency when it is a question of national defense, women have a real place. The contribution of women in air work will become more pronounced. In ten years the number of women pilots has increased from 100 to 1,300. Because women are more patient and thorough, they make better teachers. They would, therefore, make good instructors for primary training, instrument work, and radio. The work of women in war times need not be confined entirely to the ground. In addition to driving ambulances, I see the need for women to fly them. I can easily foresee the necessity for women pilots in the cockpits of courier and supply ships.

By developing a corps of women to do this kind of work, men will be released for the more active and important duties. Men would thus be released to swell the man-power needed for fighters and bombers.

When we get 50,000 military planes in the air, we are going to have far more pilots than now, and those pilots are going to include several thousand women. Some of them are going to work at it, and are going to be very competent. They will make our sex proud of them, I am sure. The women should not be overlooked in any comprehensive training for national defense and its subsequent program.

I was asked to send along a picture with this article. The one I am sending was snapped by a News Photographer immediately on my landing after breaking the open class international record for 2,000 kilometers. At the moment, I was quite well satisfied with life.

A Merry Christmas and progressive Happy New Year to all the members of the *Consolidated* organization.

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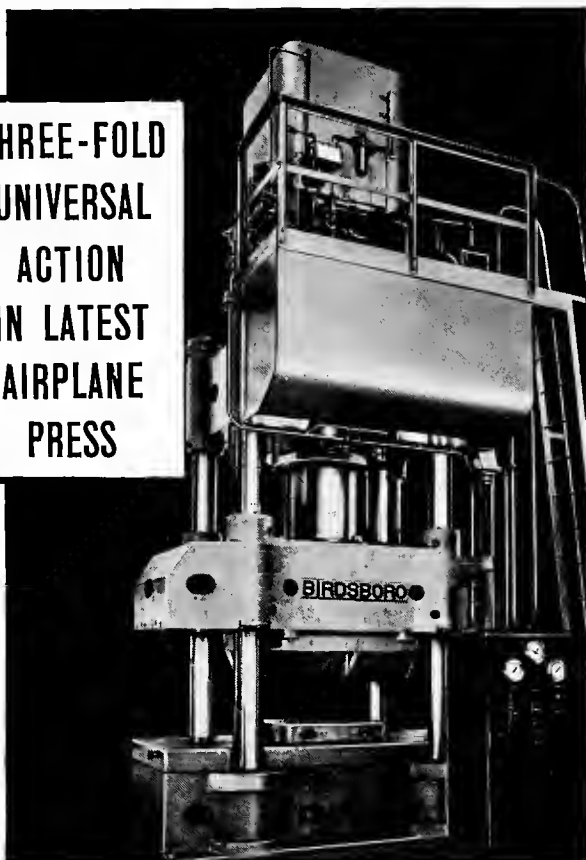


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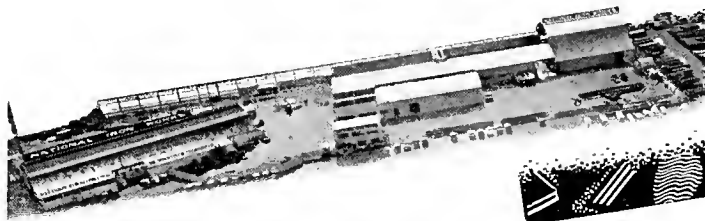
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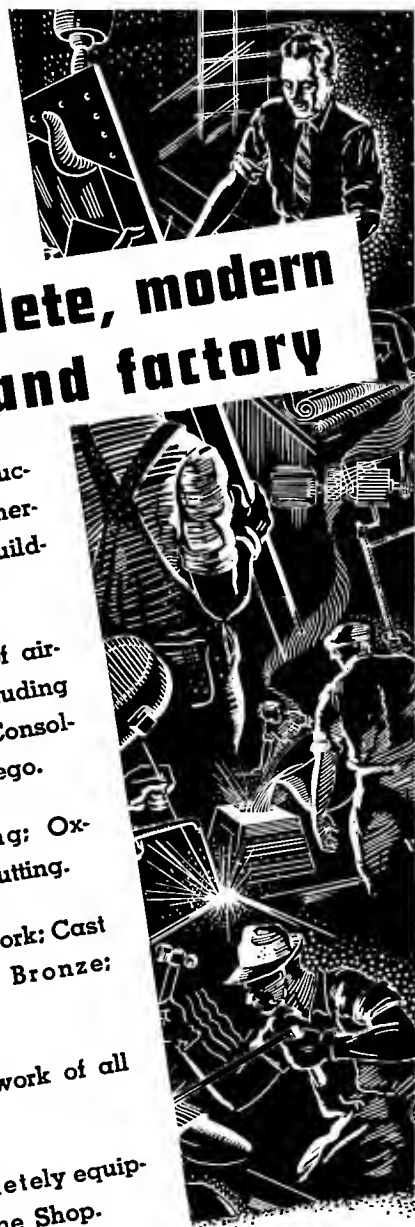
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Consolidated Model 32 four-engined land bomber destined for Great Britain

GERMANY AND OURSELVES

IN the days immediately preceding the war, when wishful thinking had become a transient but nevertheless lamentable characteristic of democratic peoples, it was popularly supposed that the German Luftwaffe was notable only for its numerical strength; and notorious for its indifferent equipment. Fortunately for the cause of Democracy, however, this view was not endorsed by those responsible for the development of the Royal Air Force.

We knew very well that, partly due to our own lack of foresight as a nation, we should be confronted not only by the greatest numerical air fleet in existence, but also by one in which good design and skillful workmanship had played their part.

The fact that efficiency in design and workmanship is not a monopoly of the Dictatorships, however, had been emphatically demonstrated in recent months by British aircraft on both sides of the English Channel, and by the Hudsons designed and built in the U. S. A. But the numerical advantage still lies with Germany and Italy; and it is in this sphere most especially that America is making such a vital and deeply appreciated contribution toward our war effort.

The determining factor in this war is undoubtedly going to be superiority in the air. With all the initial advantages on her side, and outnumbering us by nearly four to one, Germany has so far failed to

secure this superiority. With every passing day Germany's numerical advantage is shrinking, while the familiar 'duck-egg blue' is obscuring a steadily-increasing proportion of the Nazi sky. This is the most important, and probably the least appreciated, feature of the existing situation in Europe.

Soon Consolidated aircraft will be matched against their Nazi counterparts in actual warfare. It may therefore be of interest to record here a few of the outstanding characteristics of German military aircraft.

The first and most striking feature is the universal employment of fuel injection in place of carburation. There are detail differences between individual German engines, but generally speaking injection takes place directly into the cylinder on the induction stroke and is provided by the same type of pump that is familiar to every Diesel engine operator. In this case, however, the charge is fired by spark and not by compression. The fuel is metered with meticulous precision to each cylinder by means of a rotatable plunger acting on the Bosch principle, and the setting of the plungers is in turn controlled by suitable aneroid and thermostatic capsules so as to apply automatically the appropriate corrections for charge temperature and pressure and for exhaust back pressure. The military advantages of this system are reduced vulnerability from fire

By F. A. FIRTH,
Resident Technical Officer,
British Purchasing Commission

risks in the induction system, freedom from icing, better specific fuel consumption due to excellent distribution, easier starting and the ability to use fuels with relatively poor carbureting characteristics. The disadvantages are the difficulties of providing against air locks in the pumps, the extreme complexity and vulnerability of these pumps, and the excessive precision required in their manufacture.

Apart from this question of fuel injection the German engines have nothing outstanding to recommend them either from the point of view of design or of performance. With regard to materials the only interesting feature is the extensive employment by Germany of magnesium alloys.

Turning to the aircraft themselves, Germany has followed, on the whole, conventional design. The workmanship throughout is of high standard and the aircraft aerodynamically efficient. But there appears to have been an inordinate emphasis upon speed, and to this have been sacrificed in large measure those qualities of maneuverability and ease of handling which characterize a good fighting machine. After all is said and done the only practical use of speed alone is the ability

(Concluded on page 109)

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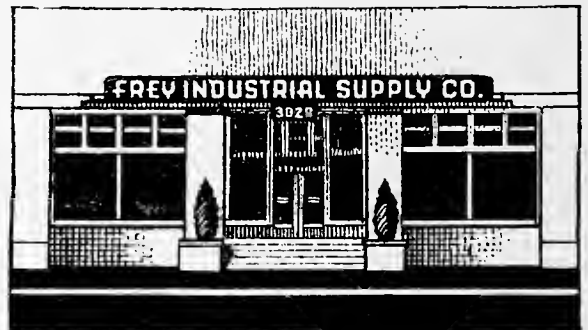
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WORD OF THANKS . . .

It is difficult to thank adequately and personally all those whose contributions, suggestions and aid from many angles, have greatly assisted in the preparation of each issue of the *Consolidator* during the past year. Hundreds of fellow *Consolidators* have submitted contributions or tipped off regular news gatherers, preferring to remain in the background so that your names could not be known . . . but to all and every contributor, whether directly or indirectly . . . for submitting news items, or ideas or criticisms . . . a sincere vote of appreciation for the splendid reader-and-reporter cooperation. . . .

Thanks too, to all those whose contributions because of time or space could not be included in the issues for which they were submitted, and to our advertisers who have so consistently helped us to present the issues. . . .

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(Continued from page 61)

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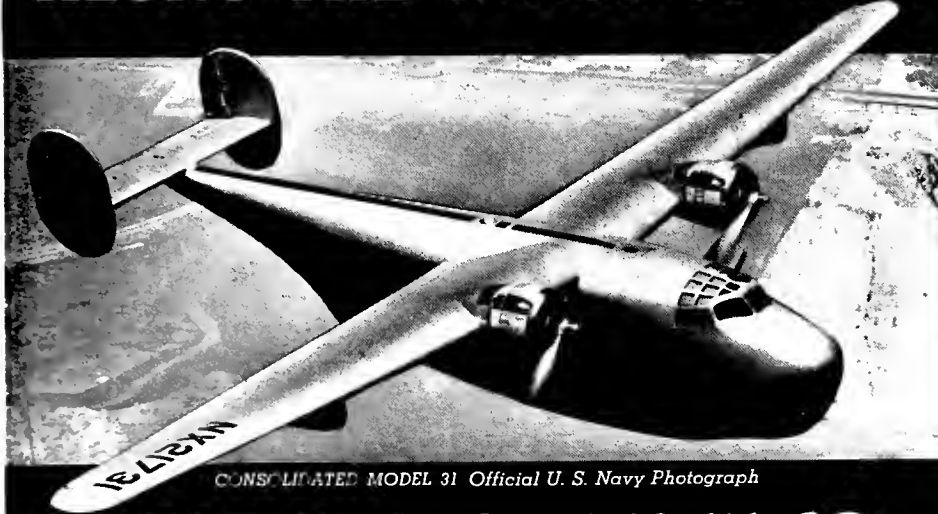
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GERMANY AND OURSELVES

(Continued from page 101)

to outdistance a pursuer. This is not the accepted function of a fighter.

In regard to bombers and reconnaissance aircraft, we hold a very marked lead in general design. It was realized in the very early stages that bombers must not only be able to carry heavy cargoes of bombs and drop them accurately upon specific targets, but they must also be able to rely upon their own armament for protection from enemy fighter opposition. Under modern conditions it is neither practicable nor tactically advisable to send fighter escorts with every bombing squadron. These two functions of the bomber were therefore developed side by side with very gratifying results. On the other hand the Germans have relied upon fighter escorts, and our Hurricanes and Spitfires have shown that, with or without these escorts, the German bomber is a relatively easy target. This is the reason for the insistence placed upon adequate defensive armament for all bombers being

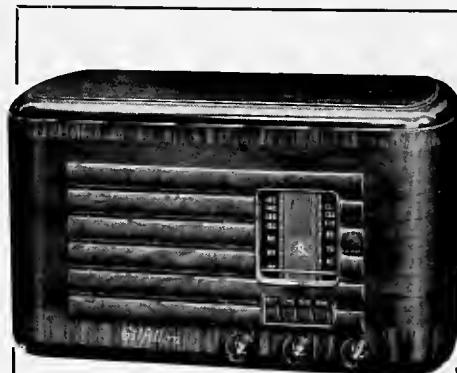
built in the U.S.A. for war service.

Germany held an initial advantage in the development of bullet-proof and crash-proof fuel tanks. Their tanks, though definitely effective, have so far been extremely heavy. They are built around a fibre shell and consist of the now familiar materials of crude and uncured rubber, leather and fabric. In Great Britain and America, however, rapid strides have been made in this direction and it will be exceedingly interesting to note how the results will behave under war conditions.

A steadily-increasing number of military

aircraft will soon be moving from the *Consolidated* plant to the scene of hostilities. Obviously those who have designed and made these fine aircraft will want to know from time to time how they are progressing in service. Arrangements are being made to maintain the closest possible liaison between the *Consolidated* plant and the Royal Air Force squadrons equipped with *Consolidated* flying boats and bombers. It is hoped that we may be able to publish periodically in the *Consolidator* items of news direct from the men who are actually flying and fighting the weapons produced here.

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45-Power telescope roised to 68-
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| Suits . . . \$19.50, up | Dresses . . . \$6.75, up |
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TERMS TO SUIT YOUR CONVENIENCE

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This issue of the *Consolidator* (25,500 copies) required more than 13 tons of paper in the printing . . . approximately a half million individual press impressions were made in 25 days of presswork. Nearly 2 tons of type metal were used, as well as practically 300 pounds of ink.

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Enjoy the home-like comfort, the large outside rooms, and the friendly service of the Maryland. Conveniently located right down town. Close to your work. Cafe.

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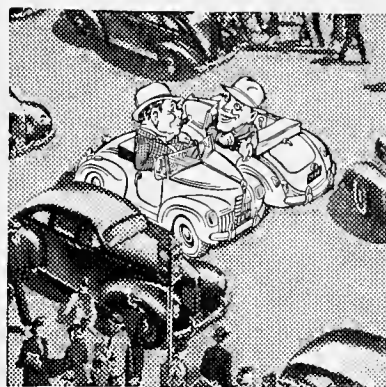
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Comfortable



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DID YOU KNOW . . .

That the roof of the *Consolidated* storage shed is the largest sign on the Pacific Coast? It is 1004 feet long, 34 feet high. 175 gallons of paint were used in painting the letters 25 foot high!

That people who work in aircraft plants also shouldn't throw stones—there were, on November 1, 141,667 panes of glass in the *Consolidated Aircraft* plant!

That on the same day there were 3½ miles of electrified monorail in the plant?

That *Consolidated's* largest drafting board is in the Loft Department and is 104 inches high, 600 inches long?

That there are 4,000 cubic yards of concrete in the floor of the final assembly building (Building No. 2) alone? And that there are 4,788,000 pounds of steel in this one building?

That in the entire present plant (as of November 1) there were 11,171,892 pounds of steel?

That the total area of the *Consolidated* plant on this same date was 1,706,332 square feet?

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SLACK SUITS
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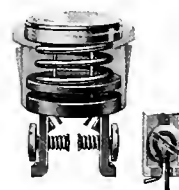
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GREETINGS FROM THE WELFARE DEPARTMENT

DUE to the rapid increase of employment and consequently a greater amount of sickness and accident cases to care for, we have not been able to do much, with the exception of sports, for the newcomers within our gates. We have a plan now working, however, that we hope will help you to get acquainted with the kind of people you would like to meet and get the enjoyment here, you were used to in your home town. Several places for social activities have been offered and more are expected.

But first, we want you to call at the welfare office and tell us your desires, then we will be able to direct you to a place in the vicinity of your residence.

Lonesomeness and homesickness are dreadful and cause a lot of heartaches. So please help us to help you to the welcome you are entitled to, when you become a member of this large and growing family.

W. C. GILCHRIST,
Welfare Director.



Bombing planes have been described as simply extra long range guns.

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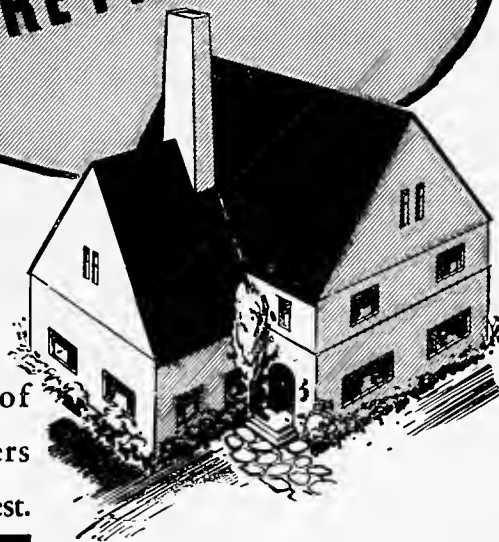
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The Missouri Aviation Institute is licensed by the Civil Aeronautics Administration to train men as capable, efficient airplane and engine mechanics. All training in the Institute is so licensed and provides the aircraft industry with the high type of mechanics who are both capable and ambitious.

The Missouri Aviation Institute is one of the first schools established in the United States devoted exclusively to the training of mechanics for the aircraft industry. Many of our graduates have taken their places in the industry and are to be found in responsible posts.

We are proud of the fact that the Missouri Aviation Institute is regarded by the aircraft industry as a reliable source of supply for skilled airplane and engine mechanics.



Homer L. Bredouw,
President

Municipal Airport
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Our Role In The Aircraft Industry

It is with pardonable pride that we point to the fact that among the members of the great Consolidated family are many young men who graduated from our school. Their employment by Consolidated is evidence, we believe, that they were properly and soundly trained as students. We sincerely maintain that here in the largest and most complete school of its kind in the Middle West students receive superior training. It is significant that since January 1, 1940, almost 1300 men trained under the Frye system have been employed by aircraft manufacturers; and in virtually every case employment came immedi-

ately after their graduation. That is additional testimony that the type of training carried out in our schools, under the supervision of Donald Frye, is satisfactory to manufacturers.

We recognize our responsibility to the aircraft manufacturer in meeting the vast production problems of today. We spare no effort to accept and discharge that obligation. We are determined that the Frye Schools shall always be recognized as a source for supplying the type of workers who measure up to the manufacturer's demand.

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